THE HASHEMITE KINGDOM OF JORDAN

THREE YEAR DEVELOPMENT PLAN

1973-1975

Jordan.
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NATIONAL PLANNING COUNCIL

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HIS MAJESTY KING HUSSEIN

It is with deep appreciation that I extend my thanks to those young men and women whose work produced the Three Year Plan. It is with equal determination and faith in the destiny of Jordan and in the courageous leadership of His Majesty King Hussein that we Jordanians shall implement this Plan to the best of our ability as an intermediate step in establishing confidence in our potential to build the better future we seek for our people and to cement the bonds of trust and mutual respect with the international community.

El Hassan bin Talal

OPENING SPEECH

DELIVERED BY HIS MAJESTY

KING HUSSEIN

JORDAN DEVELOPMENT CONFERENCE

AMMAN NOVEMBER 11-13, 1972

Distinguished Guests,

It is my great pleasure to extend to you all a warm and hearty welcome to Jordan. I wish you a pleasant and fruitful stay in our country. I hope that you will remain amongst us long enough to be able to visit our interesting sites and historical treasures as well as our development projects. Long enough I hope so that you may get to know our people, and to better acquaint yourselves with our achievements and aspirations and appreciate our problems and anxieties.

I wish also to sincerely thank you for your participation in this conference. For us, it is a unique opportunity to have such an august gathering of minds, representing developed and developing countries, international organizations and voluntary agencies. You represent a real wealth of experience, wisdom, and sound practice on which we hope to be able to draw in the refinement of our plan and the direction of our efforts. We will highly value your advice, and benefit from your knowledge and experience in our future strides. I will personally be most interested in your impressions and observations. If the period of the conference is short, then please, do not hesitate to keep in contact with us, for we shall give your constructive message and afterthoughts every consideration and prompt action wherever applicable.

Distinguished Guests,

The current realities pertaining to Jordan's problems which are worthy of your thoughts and understanding are enormous. First and foremost, among them, is the continued occupation of the West Bank of Jordan. We would have so wished to have the development of the West Bank figure as prominently in the Plan as that of the East Bank, but it is very difficult to keep a complete check on what is the exact state of affairs in the West Bank during this continued occupation, and it is not possible for us to launch a development program therein. The day we recover our occupied lands and people would not be our happiest day only, but it would be the day on which we make the necessary decisions to divert all our energies and available resources towards the reconstruction, rehabilitation and development of the West Bank, to bridge gaps and to remove disparities between the two Banks of the United Arab Kingdom embracing Jordan and Palestine.

The Three Year Plan is not a panacea for the solution of all our problems. It is just a first step; it is a mere activation of the development momentum and a renewal of our long and strenuous strife. We are determined to face our problems squarely and courageously, and we are confident that we will be able to solve them gradually and surely. Towards this end, I consider it a privilege to share with you, this morning, some of our general ideas on the planning and development in Jordan.

Before June 1967, Jordan had performed a very successful experiment of modernization and economic development. Its remarkable success as was measured by exact indicators, was universally acknowledged by all interested observers. The June 1967 tragedy interrupted the momentum of this experiment. The occupation of the West Bank shattered the integration of our economy, increased the number of refugees and displaced persons, and inflicted on the economy great damages and losses. The internal pains and strife, which ensued later, brought the economy to a standstill more accurately to a full paralysis. Production fell to a low minimum, priorities were missed in the maze of ad hoc decisions made on the spur of the moment to meet emerging situation, and investment lost its sense of security and purpose.

However, as soon as law and order were reinstated in all the regions of the Kingdom, I asked my Government to immediately reactivate the machinery of planning, and set the stage for the efficient implementation of such planning. During the last five years the first practical lesson we have learnt was this: security and stability are the sine qua non for planning and development, and only under a climate of peace and order can economic plans be prepared and development projects be executed.

For the restoration of law and tranquility in the country, we owe the Armed Forces a lasting debt. If any person doubts the rationality of our military expenditures, he must remember that our land is still under occupation, our bid for peace is still short of materializing, the legitimate rights of our people are still not recovered, and forces of darkness and proponents of chaos, anarchy and irresponsibility still plague our area. When it is a matter of life and death for a country, military expenditures become inevitable and quite justified. Moreover, the Armed Forces are an establishment of employment, education, technical training, health services, and consumption as well. In many instances, we have called on these forces for the accomplishment of reconstruction and production tasks.

The Jordanian citizen of both banks, of Jordan and Palestine, however, is our most valuable resource and asset. To his education, training, medical care, housing, employment and welfare we address ourselves. Our main objective will continue to be the betterment of his lot and the provision of amenities and facilities which would improve his life conditions. In this country, the plight of our people, the refugees and displaced persons from Palestine becomes of major concern to us. Their misfortune is not of their own making or of ours; it is the product of a great human tragedy and the consequence of the United Nations resolution or lack of resolution. Like all the poor masses of the world, and as Mr. McNamara put it in a recent address, these destitutes and I quote:

"Want jobs for their survival and a future for their children. They want the simple satisfaction of working towards something better; towards an end of misery, and a beginning of hope." Unquote.

Distinguished Guests:

No conscious development policy can be chosen with certainty. The questions of priorities cannot be easily resolved. The controversy on choices between the directly productive projects and social investments is an old dilemma. Our Plan lays more emphasis on infra-structural projects and the expansion of social services. I whole-heartedly support this trend. It began lately to dawn on state leaders and international authorities on development that growth targets must be defined in terms of basic human needs. "Increases in national income as essential as they are, will not benefit the needy unless they reach the needy". Disparity between individuals, or between nations, is the main cause of social tensions, turnoils and upheavals. If we hope to give economic growth its significant meanings and rewards, we have to provide new opportunities of employment, progressive social services, and an equitable distribution of income. Every citizen must have a stake in the process of planning and development since he must become a contributor and a beneficiary at the same time.

Our Plan envisages more opportunities of employment. Work is a blessing and an honour as much as it is a human right and a national duty. Our farms, industries, schools, hospitals, roads and other symbols of modernization are built with the sweat and toil of our labour force. Yet, there are still large masses of people who are unemployed, under-employed or suffer disguised employment. We seek to engage all of them in productive activities. The exceptional expansion of our educational system is the solid foundation for matching employment and training programs with the vacant jobs and required skills. In as much as we shall guarantee the workers their legitimate rights, we expect them to produce more. Remuneration must be commensurate with productivity. A new code of labour ethics must be drafted to govern the workers' attitude and behaviour. And I am calling on the Labour Unions to draft this code and bring home the goals and commitments of the Plan to their members. I hope that the spirit of "the one family" in Jordan which reigns over our human relations in general, and our labour-management relations in particular, will continue to be our esprit de corps in the performance of our future tasks.

The directly productive enterprises in the Plan have been, intentionally or unintentionally, left to the private sector. I endorse this attitude since our citizens, as represented by the private sector, have demonstrated their interest in material well-being, their interest in technology and innovation, their ability to look ahead, their willingness to take risks, their perseverance and their readiness to collaborate with other people and to observe the rules of the game. These qualities give us every good assurance of the citizens' will to introduce change and participate in decision - making related to development.

The Jordanian entrepreneur is intelligent, dynamic and dedicated. He shall enjoy our support and encouragement. Private ownership shall always be respected and permitted to reap the fruits of its own endeavours. We shall also offer every reasonable incentive and insurance to savings and investment in agriculture, industry, tourism, housing or any other development venture. Foreign capital shall enjoy the same kind of privileges and protection. In brief, the private sector has a big role in the implementation of the Plan, and I am confident that it will perform this role promptly, efficiently and effectively.

We are aware that our success in planning and implementation depends very highly on the participation of every citizen, on the democratization of the decision - making process and on the seriousness and sense of responsibility with which we perform our mission, especially in the first year of the Plan. Our internal organization shall have to be so geared as to become planning conscious and development oriented. However, the Plan envisages capital aid and contributions by brothers, friends and other agencies, and we hope that they will not fail our expectations.

Let me conclude by saying that we have no pet ideas about any economic doctrine. We do not think that any abstract model of an economic system, whether it is capitalism or socialism or communism or otherwise, could solve all our problems. Hence, we intend to be selective rather than move in a groove. We will be free to choose the most effective principle or practice which would apply in the Jordanian scene and enhance our economic growth, social progress and the satisfaction of our basic needs. We are an open book ; and we have open minds to brotherly and friendly advice and assistance. The raison d'etre of this Conference is to amplify this openness and prove its worth in Jordan. I hope that the Conference will be in itself a rewarding experience for all, and that it will start a process of bilateral consultation and collaboration in the near and distant future. I wish you success in your deliberations, and thank you, once again, for your participation.

SPEECH DELIVERED BY HIS ROYAL HIGHNESS

CROWN PRINCE HASSAN

JORDAN DEVELOPMENT CONFERENCE

11 - 13 NOV. 1972

Distinguished guests, ladies and gentlemen :

May I reiterate the warm welcome extended to you by His Majesty the King in his opening address, and our sincere thanks for your participation in this conference.

Our decision to hold it, stemmed basically from our openness to the world, our desire to acquaint participants with our country, what we stand for and what we look forward to. It might also serve the purpose of providing us the benefit of your collective advice.

As His Majesty stated, the three-year plan represents, in our view, a turning point along the path of development and progress. It aims at reactivating economic conditions and resuming the developmental momentum Jordan experienced prior to the events of June 1967. It is designed to consolidate gains from previous investment, benefit from past experiences, and build an adequate platform for accelarated and more ambitious development thrusts in the future. All of this is to be done within the framework of a strategy that emphasizes meeting citizens' needs and aspirations for a better life with dignity and pride.

Jordan's role and credibility, we believe, is essential to the development and the stability of our region. Our success in implementing the three-year plan and meeting the needs of our citizens will contribute largely to the stability of the area. We are confident that we can, and must, achieve our goals.

My personal contacts during the past two years with many of you here today have assured me of the willingness of friendly countries to support Jordan's bid for self-sustained growth. This conference is not an end in itself, but part of a continuing process of establishing a substantive dialogue with the international community. I am fully aware that there is no limit to the ways in which a stable country with clearly defined objectives can interact with bilateral and multilateral, public and private, sources of assistance and understanding in the world. Though we are fully aware of the complementary nature of the social and economic factors in our economy, I felt, as a layman at least, the need to maximize the gain of our deliberations in the forthcoming days, and to pay special attention to countries and international agencies with whom we have had successful cooperation in the past, and also to those technical and voluntary agencies whose basic interest in our part of the world has not been sufficiently stimulated by us in the past. We would like to turn over an entirely new page in terms of the scope and perspective of what is being proposed, and to concern ourselves with more than the trivialities that stem from bureaucratic allocations of funds to Jordan as a recipient member of the international community. Instead, our endeavor is to create, through jointly defining and recognizing what Jordan stands for in our area, a partnership based on merit.

Distinguished guests,

It is not funny to be told you are not credible or to have to go "hat-in-hand" annually to foreign donors in search of assistance. It is this misconception that we are out to change. I believe that your testimony to the technical soundness of our planning is an integral part of what we hope to achieve in putting Jordan on the map as a contributing member of the international community. We here in Jordan have found that our will to develop and progress is tempered by the adversities of the past. On the other hand, we do not expect to be taken seriously if there are shortcomings in the way our case is presented. It is for this reason that, from the outset, the plan has been all-embracing. Everyone has participated in recognizing that an administration can not continue to act as an employment agency or to react passively and subjectively to people's needs for more service. Our criticism of ourselves has been, and will be, thorough, and the channels by which you can participate in this constructive criticism are being established.

Our aim in life is not selfish. It stems from the genuine and urgent need to do all that is possible and necessary to solve the problems facing the nation. The vital needs and the future participation of every citizen of Jordan in all parts of the Kingdom and the furtherance of our common goals of development remain our prime responsibility and major concern.

To a layman, the plan means more than economic credibility or clarity of figures. We are not out to prove to you how clever we are but, rather, to demonstrate to you that our sole aim is to invest in our future and in the future stability and progress of our region — a region of vital importance to the whole world. I believe that the underlying theme of what I have said is based on realism. We would like this realism to be shared by you and the world at large.

Thank you.

CONTENTS

		Page
1.	DEVELOPMENT STRATEGY	1 — 19
2.	FRAMEWORK OF THE THREE YEAR PLAN	20 — 54
3.	AGRICULTURE	55 — 92
4.	IRRIGATION	93 — 105
5.	INDUSTRY AND MINING	106 — 136
6.	TOURISM AND ANTIQUITIES	137 — 151
7.	ELECTRICITY	152 — 159
8.	TRANSPORTATION	160 — 190
9.	COMMUNICATIONS, BROADCASTING AND TELEVISION	191 — 210
10.	FOREIGN AND DOMESTIC TRADE	211 — 216
11.	EDUCATION AND YOUTH WELFARE	217 — 250
12.	HEALTH	251 — 256
13.	SOCIAL WELFARE, LABOUR AND CO - OPERATIVES	257 — 278
14.	HOUSING AND GOVERNMENT BUILDINGS	279 — 291
15.	MUNICIPAL AND RURAL AFFAIRS	292 — 312
16.	AL - AWQAF	313 — 318
17.	STATISTICS	319 — 322
18.	MANPOWER AND EMPLOYMENT	323 — 331

1. DEVELOPMENT STRATEGY

1. In the decade preceding the 1967 June War, Jordan enjoyed a degree of social progress and economic prosperity which has been rarely matched in the experience of developed or underdeveloped countries. Both came about as a direct result of success in expanding services, utilization of natural resources, employment, increase in the gross national product and a rise in the standard of living to satisfactory and decent levels. The decade was characterized by modernization, expansion and increase in public services. It also witnessed an enterprising spirit of economic activity characterized by a deepening partnership between the private and public sectors and an upsurge of individual initiative to levels of optimum potential.

2. The momentum of modernization and economic development in Jordan was accelerated after launching the Five Year Plan for Economic Development (1962 - 1967), which was later revised to become the Seven Year Programme for Social and Economic Development (1964 - 1970). The revision was prompted by unexpected reductions in the level of budget support. The Seven Year Programme adopted a set of basic objectives: reduction in the trade deficit and in the country's reliance on budget support, increase in the gross national product at an average rate of 7.3% per annum, and increase in employment opportunities at an average rate of 5.2% per annum.

3. In the period preceding June 1967, most of the Programme objectives had been achieved. GNP, at market prices, increased from JD 68 million in 1956 to JD 130.8 million in 1962, at an average annual rate of growth of 11.5%. It increased to JD 185.8 million in 1966, at an average growth rate of 9.1% per annum. This rate, which surpassed the rate originally envisaged by the Programme, had rarely been realized in developed and developing countries alike.

Considering that this growth in GNP took place within the framework of relative price stability (not exceeding 1% per annum) and that the rate of population growth was 3.1% per annum in the same period, it becomes apparent that this rapid economic growth meant a real and tangible improvement in living standards. The citizens benefited from this increase in GNP: increases in the level of employment, in per capita income, in the volume of savings and investment, in consumption and in raising the standards of public services and expanding their effectiveness over the whole Kingdom.

4. This increase in GNP was a result of a rise in production by various sectors. In the period 1959 - 1966, the average annual growth rates were as follows:

Agriculture (including crops, forestry and livestock)	9.1%
Industry and Mining, Electricity and Water Supply	16.0%
Construction	10.3%
Services	7.0%

Thus income from agriculture, industry, tourism and construction increased at higher than normal rates. This indicates that the Jordan economy, before June 1967, had entered the economic take-off stage.

5. The World Bank mission that visited Jordan in 1955 estimated that the gross domestic product at current prices had grown at an average annual rate of about 10% from 1952 to 1954, but it hastened to affirm that such a high rate could not be sustained in the future. The mission predicted 4% as an attainable annual growth rate for GNP but indicated that the achievement of such a rate would be a difficult task.

The performance of the Jordan economy has gone counter to these pessimistic forecasts and has proved that it is a dynamic economy. In his address to the annual meeting of 1967 the President of the World Bank mentioned Jordan among a small number of countries which doubled their GNP in less than a decade. He went on to predict that this accomplishment could be repeated in the next decade. While the First United Nations Development Decade aimed at attaining an annual growth rate of 5% of GNP in developing countries, Jordan was able to achieve, in the same years of the sixties before June 1967, an average rate of growth of 10% per annum. This rate could have been sustained for many years to come, had certain events, to be mentioned hereafter, not taken place.

6. One of the basic prerequisites of development and modernization is the development of human resources, which are the dearest wealth of a nation. The Jordanian people showed a keen interest in seeking education and knowledge and made material sacrifices to acquire them in pursuit of self-development.

The State responded positively to the demand for education. The number of students enrolled in schools increased from 252,990 in 1956 to 439,552 in 1966, at an average annual rate of 5.7%. The number of students in universities and higher institutions was more than 25,000 at the end of 1966. Support of the "School" as an instrument and manifestation of modernization is a by-product of the belief that education is an economic investment which yields faster returns than originally expected. Hence the education base was continuously expanded and the number of university students increased. Jordan was able to prepare and train specialists before the need for their services appeared, or very soon thereafter. These trained human resources lead to the success of the Jordanian experiment in economic development.

7. The "town", as another aspect of modernization, enjoyed the advantages of town planning, services, communication, rapid expansion, water, electricity and medical facililties. Electricity output increased from 16,346,000 KW/h in 1956 to 175,830,000 KW/h in 1966, at an average annual increase of 28.6%. Towns were connected with a modern network of asphalted roads, whose total length increased from 1581 Km in 1956 to 2658 Km in 1966 (5.3% per annum). Transportation was very cheap. At the same time, however, migration from the rural areas to urban centres increased, thus creating new problems for which effective solutions had to be found.

8. The "Corporation", as yet another sign of modernization, was established in the fields of industry, trade, business and banking,

and enjoyed the confidence of share-holders and investors. The cement factory, the tannery, the refinery, some banks, and tobacco, vegetable oil, confectionery, and woollen textiles industries were established in the sixties. The production of phosphates, the most important of Jordan's mineral resources, increased from 208,400 tons in 1956 to 1,035,900 tons in 1966, at an average growth rate of 17.4% per annum. A large number of shareholders in these companies are small savers and investors.

9. At the same time, the Kingdom enjoyed a high degree of monetary stability. Prices did not rise to undue levels. Banking services were adequate. Bank branches were opened in the big villages and gained the confidence of the public. New financial institutions were established. These included the Agricultural Credit Corporation, the Central Cooperative Union, the Industrial Development Bank, the Housing Corporation, the Municipal and Village Loan Fund and the Central Bank. The following table shows some important monetary indicators and the percentages of their growth.

(In JD 000's)

	As at end of 1956	As at end of 1966	Average Annual Growth Rate
Deposits of Private Sector	7,680	44,462	19.2%
Money Supply	20,240	56,033	10.8%
Foreign Exchange Reserves	25,180	69,756	10.8%
Bank Credit	8,950	38,989	15.8%

10. In the field of public finance, public expenditures rose from JD 21.3 million in 1956/57 to JD 49.7 million in 1966, an average increase of 8.8% per annum. Domestic revenues also increased from JD 8.6 million in 1956/57 to JD 31 million in 1966, an average increase of 13.7% per annum. Budget support, excluding loans and technical and economic assistance, constituted 56% of current revenues, but it was reduced to 25.4% in 1966 and to 22.3% in the 1967 budget. All this had been achieved through Jordan's determination to gradually minimize budget support until it disappears completely.

The Government introduced progressiveness in income tax as one measure to attain an equitable distribution of income and promote public welfare.

The external debt burden remained within Jordan's ability to honour it. The external debt amounted to JD 7.5 million in 1956 and rose to JD 26.9 million in 1966, while debt servicing rose from zero in 1956 to JD 0.6 million in 1966. Thus, the fiscal system was healthy enough to encourage individual investment and economic growth, and to attract capital to the country.

11. The balance of payments was in surplus throughout the period 1956-1966 except in the years 1959, 1960 and 1963. That surplus added to the reserves of the Kingdom. The accelerated improvement of foreign exchange earnings from tourism (JD 11.3 million in 1966) and remittances of Jordanians working abroad (JD 13 million in 1966) enabled the balance of payments to enjoy a favourable position, which encouraged the authorities to follow a liberal policy regarding imports and the use of foreign exchange. As mentioned before, foreign exchange reserves rose from JD 25.2 million in 1956 to JD 69.8 million in 1966.

12. This social and economic progress had been achieved under the umbrella of constitutional continuity, stability, law and order. It was also accompanied by the development of democratic institutions: parliament, trade unions, cooperatives, chambers of commerce and industry, companies, charity associations, women's unions, clubs and municipal and rural councils. The spirit of consultation, participation and sense of belonging and identification had widened its horizons under the aegis of respect for the value system and the prevalent ideals of the nation. This system and these ideals were continuously reconstructed without revolutions and coup d'etats. Science, technology, and rationality were utilized as far as possible. Jordan maintained its economic system of free enterprise without compulsion or fanatic adherence to an economic philosophy or to imported doctrines and ideologies. Jordan's economic system emerged from the realities of the society and attempted to satisfy its needs. It opened itself to the Arab World and the world at large.

The 1967 June War and its Aftermath

13. The 1967 June War took Jordan's economic experience by surprise. As a result of the occupation of the West Bank of the Kingdom, the spur of economic development was abated and the complete economic integration of the two banks was disrupted. Military mobilization curtailed development efforts, and the major development projects of the Seven Year Programme had to be suspended. Among these were the Khaled Ibn El-Waleed dam, Jordan electrification, the Jerusalem airport and the potash project. Although it is difficult to quantify these damages, it is possible to identify them and point out their inherent dangers. The effects of the 1967 War and its aftermath on the Jordan economy could be summarized as follows :

a) The average annual growth rate of GNP decreased significantly to only 3.8%. Annual growth rates of various economic sectors also decreased during the period 1967-1971 to the following levels :

Agriculture	— 1.5%
Industry, Mining, Electricity and Water Supply	5.2%
Construction	3.5%
Services	5.0%

b) The Government had to meet the basic needs of shelter and food for a new influx of 400,000 displaced persons from the West Bank and the Gaza Strip.

c) Defence expenditures grew rapidly, curtailing vital development allocations.

d) As a result of the closure of the Suez Canal, communication routes to Jordan had to be changed, and Jordanian phosphate lost some of its European markets.

e) Work opportunities in the East Bank were reduced owing to the suspension of major development projects.

f) The brain-drain and labour emigration increased, especially as a result of higher wage rates outside Jordan.

g) Earnings from tourism declined significantly, from JD 11.3 million in 1966 to JD 3.1 million in 1971.

h) Remittances from Jordanians working abroad for their families and for investment declined from about JD 13 million in 1966 to about JD 5 million in 1971.

i) The Government budget's reliance on foreign financial assistance increased significantly. Such assistance accounted in 1966 for 25.4% of total public revenues (loans and economic and technical assistance excluded). In 1971, it had risen to 50.4%.

j) Jordanian industry unexpectedly lost half of its natural market.

k) Bank offices and branches in the West Bank were closed and deposits were paid without an equivalent repayment of outstanding loans. Moreover, a considerable portion of dinars was being hoarded rather than deposited in the banks.

l) The private sector was reluctant to invest or to establish new industries or expand existing ones.

m) The balance of payments resulted in a deficit during the last three years, amounting to JD 10.9, JD 1.5 and JD 11.8 million in 1969, 1970 and 1971 respectively.

14. The year 1970 witnessed an increased presence of commandos in the East Bank and a greater number of Israeli raids. Internal security and the enforcement of the law were shaken and stability disappeared. This led to a military confrontation between the Jordanian authorities and the commando organizations. The Iraqi borders were closed for a while and the Syrian borders are still closed. The consequences of these sad events, which were the inevitable outcome of aggression and occupation, were as follows :

a) A large percentage of GNP was lost, owing to the complete stoppage of all economic activity for over two months during 1970.

b) The bombing of villages destroyed many lives and residential and other buildings.

c) Labour moved out of the agricultural areas in the Jordan Valley and the Southern Ghors, thus curtailing production and marketing capability.

d) The flow of water in the East Ghor Canal was disrupted, owing to continuous Israeli raids.

e) Material damages were substantial.

f) Phosphate exports to northern countries through the Syrian borders stopped for a period of time.

g) Agricultural produce, which used to be marketed in Syria and Iraq or through them, decreased.

h) Imports through the Beirut-Syria route were suspended, thus necessitating the payment of higher transportation costs as a result of their diversion to Aqaba.

i) The closure of the Syrian airspace to Jordanian planes greatly increased flying costs to Beirut and Europe, resulting in a cessation of all flights to Beirut.

WHY PLAN ?

15. Thus, the June War, the occupation of the West Bank, and subsequent bitter events put Jordan and its economic experience face to face with hash challenges, economic paralysis, dispersed potentialities, scattered efforts and blurred visibility. The instant the Jordanian authorities succeeded in reestablishing order and

security, the necessity to resume the march towards development, planning, expansion of resources and utilization of potentialities became insistently clear to all responsible officials. In the light of external challenges, intensified by the scarcity of natural resources, the meagreness of discovered or exploited raw materials, the relatively high dependency rate (5 to 1), the reliance on unstable foreign aid and the accelerating need for foreign exchange (to cover part of the sizeable trade deficit), the Jordanian authorities started devising this Three Year Plan (1973-75), which aims at accelerating the development effort and setting in motion again the wheel of economic and social development.

16. Needless to say, the cardinal difficulty faced by planners is the task of planning under conditions of obscure future expectations. Planning in Jordan is rendered extremely difficult by the occupation of the West Bank, the no-war-no-peace dilemma and its political and military implications. Nevertheless, Jordan, carrying the rifle in one hand and the shovel in the other, has no alternative but to face the great challenge with wisdom and fortitude and to shoulder the task of planning, which must be conducted under principles of flexibility and adaptability to changing conditions and emergent vicissitudes.

17. It is impossible for this Three Year Plan to ignore the West Bank, the dearest part of the Jordanian structure, or wait until it is freed from its current ghastly yoke of occupation. A special section in the Plan will be devoted to reconstruction and development projects in the West Bank in order to effect re-integration of the economic arteries of the two Banks, enrich them with life and momentum, and reinstate the West Bank as a sturdy and productive wing of Jordanian life and the Jordan economy.

18. As long as the West Bank is under occupation, planning for the Kingdom as a whole would not be possible. Therefore, the Three Year Plan will follow a regional planning approach which concentrates on the development of the East Bank at this stage. It is recognized that the strength and development of the East Bank

constitute guarantees of steadfastness and basic prerequisite conditions for the elimination of aggression. Moreover, regional planning has its precedent in some countries where it was employed for the purpose of establishing pilot projects, bridging the gap between one region and another, or meeting the urgent needs of an individual region.

19. It is absolutely essential that all forms of work, services and investment shall be conducted within a framework of organized effort. It is therefore imperative that the process of construction be resumed on the same bases and foundations that were laid in the sixties, to utilize the large investments expended in them, and to benefit from the past successful experiences in accomplishing new achievements. The experience has to be repeated by reinvesting profits and regaining confidence in the national economy. This should be accomplished through sound planning, effective execution and motivation of the private sector to reactivate itself and increase its savings and investments, thus winning broad support for the financing and implementation of the Plan.

20. Thus, enlightened planning offers an ideal opportunity for acquainting ourselves with the accomplishments of the past, the facts of the present and the responsibilities of the future. If resources are meagre and scarce, planning will be the better method for determining priorities and optimal utilization of these resources for the public good. In the conference of the Arab Ministers of Planning, it was agreed that the end of 1975 would be the start of coordination among the Arab economic development plans. Thus it has become imperative to formulate a short - term plan for the three years preceding the date set for coordinating the various plans. Also, one of the strong reasons which has motivated the Jordan Government to launch the Plan is the time period itself, which is sufficiently long for the accomplishment of a great number of projects incorporated in it. Moreover, control of variables and facts for longer periods at this stage is a more difficult task and is more dependent on value judgments and aspirations than on actual facts and real events.

Facts and Problems of the Situation

21. In order for planning to be realistic and objective, a quick reference to the facts of the situation and the problems of the Jordan economy has to be made. It is in the light of these facts and problems that the objectivity of the Plan, its priorities and activities can be projected. In reviewing facts and problems, selectivity and generalization might have to take precedence over comprehensiveness and scientific precision. However, if the introductions, goals and conclusions are firmly interrelated, the Plan will remain a serious and logical document without sacrificing its function as a statement of hopes and aspirations.

22. A cursory look at the national income accounts would reveal the continuing dominant contribution of the services sector to the Gross Domestic Product over other sectors. This contribution ranged, during the past years, between 60% and 70% and became higher after the 1967 June War. This dominance can be explained by the fact that the greater part of the relatively sizeable public expenditure has been applied to defence and other services and by the relative importance of foreign trade to the national economy, together with the necessary complementary and auxiliary services this trade requires. Therefore, it is necessary to enhance the contribution of production sectors to the national income at the expense of the services sectors.

23. Although Jordan is agricultural by nature and resources, the volume of agricultural production is still short of satisfying domestic demand. Wheat and flour donations to the refugees and displaced, grain loans from the U.S.A. and imports of meats, eggs and, occasionally, fruits still constitute a high percentage of domestic consumption. Agricultural exports are still confined to some crops of vegetables and fruits in certain seasons of the year. Given the population explosion which is threatening the whole world, self-reliance in agricultural output is one advantage, and the reduction in agricultural imports is another.

The agricultural sector suffers also from low productivity, smallness of individual enterprises, weak organization among farmers, incompatibility of production and marketing methods with modern techniques, and ignorance of the comparative advantages of available agricultural potentialities. Considering that reclamation, soil conservation and irrigation are unsatisfactorily utilized, that the Jordan Valley and Southern Ghors have been gravely affected since 1967 June War, and that the War and subsequent confrontation in these areas have completely paralyzed production and brought to a halt the most important irrigation project, namely the Major Yarmouk Scheme, it becomes evident why agriculture is in need of new over-all planning for all aspects of its potential and development possibilities.

24. Industrial growth has been marked by its concentration on a few industries that produce import - substituting commodities which enjoy a domestic market demand. Most of these industries have beeen given a chance to grow under Government protection and in face of negligible internal competition. The small size of the market, the scarcity of raw materials and the imposition of administrative and exchange controls on imports by some neighbouring Arab countries have been the prime factors behind the hesitation of the private sector and hence its limited contribution to industrial output.

The industries sector still suffers from a lack of a stable policy and comprehensive regulation necessary for the erection of a solid industrial base. Moreover, industrial projects are plagued by low productivity, smallness, and a lag in the application of modern management and advanced marketing techniques. If we add to these maladies the hesitation of the private sector, after 1967 War, to invest liberally in industry, we get a clearer picture of the bottlenecks that impede industries in Jordan.

25. The mining sector is an embryonic stage. So far, discovered and actually exploited natural resources are limited, and the amounts of available ores have not yet been firmly determined.

26. The annual contribution of the construction sector to GDP has not exceeded 5%, with Government construction constituting a high percentage of this contribution. The secret of this weakness is latent in the psychological attitudes of investors, the low level of savings and the failure of real estate credit to meet basic urgent requirements. Refugees and displaced persons, who lost their homes, form a high percentage of the population ; some houses are far below decent standards. Proper care of the health of citizens, and the maintenance of their integrity and feeling of loyalty would require that they be helped to acquire homes of their own. In addition to these intangible considerations, the activation of the construction sector creates a wide range of job opportunities and investment outlets. In order to make construction a positive factor in productivity, new housing communities ought to be constructed in places characterized by labour density, where such communities will be an infrastructural pre-requisite for inhancing production. The Jordan Valley and the Southern Ghors and mining sites are examples of such areas.

27. The incremental fixed capital formation scored an annual average of 6.5% over the years 1959-1971. Investments statistics reveal that the capital/output ratio was 1.64:1 over the same period. It is also evident that the relative contribution of the public sector to capital formation is on the increase. This is attributable to the slackening role of the private sector and the growing role of the public sector in economic activity. It would be useful to increase the ratio of fixed capital formation to GNP by increasing both savings and investment.

28. Consumption expenditure in relation to disposable income averaged 89.3% in the years 1959-1971. Current Government expenditure averaged 23% of total consumption over the same period. The earlier ratio is considered high by any yardstick. Enhancement of development and investment expenditure depends on the reduction of consumption spending to the lowest reasonable limits.

29. In most of the recent years, the balance of payments realized a surplus. However, in the past three years, the picture

has been reversed, and the surplus has turned into a sizeable deficit, which is being covered by the Kingdom's foreign exchange assets. The suspension of Arab financial aid, the decrease in income from tourism and from remittances of Jordanians working abroad have exposed the balance of payments deficit to further deficits. Jordan's dependence on external foreign assistance to cover its payments deficit and to bridge the gap between its foreign exchange receipts and payments has increased. Among the most critical problems which Jordan has to face in the near future is the payments deficit arising from the ever - widening and chronic trade deficit.

30. The trade deficit went up from JD 36.8 million in 1959 to 64.9 million in 1971. Although the growth in commodity exports exceeded the growth in commodity imports, the trade deficit continued to widen owing to a decline in the absolute value of exports and its relative proportion to imports, and to the high marginal propensity to import.

31. After 1966, public expenditures increased drastically, because of concomitant increases in defence and security expenditure outlets, which were necessitated by post-war conditions. This increase in public expenditure was financed from increases in domestic revenues which, in turn, were engendered by improvement in tax collection, increase in some tax and fee denominations, domestic borrowing and foreign budget support. In 1971, domestic revenues reached JD 36.1 million, foreign financial aid JD 35.3 million and domestic borrowing JD 11.4 million.

Capital expenditure items in the general budget indicate substantial increases in the second period (1967 - 71) over the first period (1959-66). Yet a closer look would reveal that real development expenditures have actually decreased, because a sizeable portion of the expenditures directed towards steadfastness and other related emergency expenditures, together with the increasing cost of servicing the external debt (outstanding external debt was JD 51.1 million at the end of 1971), were listed under capital expenditures. In order to bridge the widening gap between public revenues and expenditures, the Government resorted to issuing treasury bills as of January 1969 and to issuing development bonds as of June 15, 1971. The value of treasury bills as of December 31, 1971 was approximately JD 21 million, while the value of development bonds issued until mid 1972 was JD 6 million.

32. The servicing of the external debt is becoming an increasing burden on the national economy and its foreign exchange reserves. A new foreign debt policy ought to be drawn up observing the proportion of foreign debt service to national income and foreign exchange earnings, and aiming at a better utilization of foreign loans in highly productive fields. The foreign debt burden, excluding military loans, was estimated at JD 3.3 million in 1972. It is expected to soar up to JD 4.6 million in 1975.

General Development Objectives

33. Long-term objectives of economic and social development in the Kingdom are represented in the following :

a) Achievement of the highest possible level of employment, the improvement of the labour force and the upgrading of manpower potential for serving development.

b) Realization of the highest possible growth in GNP with the maintenance of relative price stability.

c) Redistribution of public services and ensuing gains more properly among the different regions and population groups.

d) Gradual reduction of the trade deficit, together with bringing the balance of payments to equilibrium.

e) Enhancement of the general budget's dependence on domestic financial sources for the purpose of achieving equilibrium in the long-run.

Development Strategy

34. In order to achieve these goals, it is necessary to crystalize the economy's achievements to date, to take advantage of its inherent strength and eliminate its flows, and to mobilize the national will to create development and change from within rather than to rely on foreign assistance. This belief stems from the fact that the major traget is the "Jordanian Citizen", who is the centre of all efforts by the plan and by government institutions. The plan's success will be judged by what is done to enhance the potentialities of this citizen, in addition to asserting his freedom, his dignity and his affluence. Development strategy could be presented in accordance with its bases, rules and measures in the following manner:

35. It is inevitable that priorities be set for the execution of development projects in relation to timing within the plan period and, accordingly, to allocate domestic revenues to recurring expenditures to insure that the Kingdom would never find itself in an embarrassing position should the flow of foreign aid stop for any reason.

36. The requirements of development are met by allowing citizens to participate in the political and social life of the country and by making the individual feel that he has a positive role in implementing development plans and that it is his right to have the country's wealth distributed in a most comprehensive and equitable manner. This stems from the belief that development which results in greater wealth for the rich does not produce a balanced and stable society. All possible means are to be used to encourage and induce private initiative, and the private sector will be given priority in carrying out feasible projects.

37. It is imperative that both natural and unnatural population growth be utilized in increasing production and that development efforts producing a higher national income be reflected in a better standard of living.

38. Scientific research ought to be utilized to deal with problems facing the Jordanian society. The government development policy should be based on the results of such research and a certain percentage (one percent) of GNP should be allocated to finance scientific research and to increase the cooperation between the various research institutes in the Kingdom.

39. The relationship between the requirements of economic and social development should not be ignored. Educational planning at all levels should aim at increasing the volume of human investment without impairing its quality. The syllabi ought to be updated, eliminating certain out-dated subjects while stressing the virtues and importance of the manual work. Moreover, the teaching staff and the students should be allowed to contribute in the execution of development projects. Also, higher education and applied scientific research policies should be linked with basic development requirements.

40. It is necessary to expand the industrial base, to increase industrial output and to integrate the sector's activities with other economic activities by way of executing industrial projects that rely on local resources, developing existing industrial establishments (in particular the export industries), and extending tourist services which increase earnings from tourism.

41. Increasing agricultural output, especially in the Jordan Valley and other irrigated areas, should be given prime consideration. In addition, prices of this sector's output should be kept at a profitable level in order to encourage investment and the application of modern technology to increase its output. It is also important that the animal resources and their by-products be augmented in order to realize the greatest possible increase in local output of meat, dairy products, fish and eggs.

42. Foreign trade ought to be rationalized by finding new import and export markets, by signing bilateral agreements and by enforcing the articles of the Arab Common Market Agreement for the common advantage of all members.

43. With regard to the Government budget, the following points are of great importance :

a) Attaching primary importance to capital expenditures and investing in the more productive projects.

b) Limiting foreign commercial borrowing to the financing of fast-yielding projects.

c) Limiting the expansion of recurring expenditures and the burden of retirement outlays on the budget.

d) Encouraging the flow of private foreign investment.

e) Expanding the issue of Government bonds to finance development projects rather than to cover recurring expenditures.

f) Encouraging the contribution of foreign investment to manpower training and to generating local industry and national revenue, without excessive tariff protection or tax privileges.

g) Increasing domestic revenues, taking into account the equitable distribution of the burden of taxation and relying mainly on direct taxes.

h) Regulating bank credit in a manner that would meet the needs of development and would reduce the ever-increasing expenditure on consumer articles.

i) Encouraging domestic savings by providing incentives, means and institutions that help the accumulation of savings and direct them towards productive investments.

44. The development process requires the existence of a governmental system that can plan, execute and follow up development projects. This necessitates legal, organizational and administrative changes in the existing system, in addition to supplying it

with technical and administrative skills to improve its performance through the following measures :

a) A clear and accurate determination of responsibilities and authorities.

b) Modernizing and completing existing laws and rules.

c) Emphasizing planning and construction goals in revising and updating legislation.

d) Increasing the interest in the "human" employee in order to improve his performance through better selection rules, better training before and after recruitment and better evaluation, so that every one gets his due.

45. It is imperative that a modern attitude be taken towards government and private institutions. This should be based on the principle of economy in administrative costs and on a clear definition of duties and responsibilities. The least efficient personnel would have to drop out. Achievements should be evaluated in light of projected production. The cost/benefit ratio for all institutions should be determined on the same basis as that for commercially-run enterprises.

46. Public services should be made available to all those likely to benefit from them throughout the Kingdom. Consequently, public services employees ought to be transferred to work in areas outside the capital and big cities. Also, governors should be authorized to execute planned projects without being hindered by a centralized routine, and citizens should be allowed to contribute to decision making, financing and control of such projects.

2. FRAMEWORK OF THE THREE YEAR PLAN

1. The Three Year Plan (1973-1975) aims at revitalizing all economic activities in the kingdom and reactivating the development process which was disrupted by the 1967 June War and its aftermath. This is to be accomplished in accordance with the principles reffered to in "Development Strategy in Jordan", which specifies the aims and principles of long-term development.

Although it is desirable to achieve development goals in their entirety, some of them may require a period longer than that of the plan. Among these are: reducing the chronic deficit in the trade balance, augmenting the general budget's reliance on domestic revenues and changing the structure of the economy so that the relative importance of directly productive sectors is significantly enhanced.

Nevertheless, the Three Year Plan is consistent with the on-going development effort in the country in that it provides the necessary basis for the expansion of local productive capabilities and, hence, for the achievement of the long-term goals of development within a reasonable period of time.

2. Goals of the Plan

The goals of the Three Year Plan are as follows:

a. Creating New Employment Opportunities

The Plan aims at creating new jobs in all economic sectors. Some are permanent, such as those in industrial, agricultural, educational and commercial projects, while others are temporary, such as those in construction, roads and housing projects. It is estimated that at least 70,000 jobs will be created during the Plan period.

The labour force in the East Bank is estimated at 340,000 in 1971. Preliminary available data show that the unemployment rate, excluding disguised unemployment, is around 8%. This rate is higher among university graduates (in particular those in the humanities) and high - school graduates.

The labour force in the West Bank is estimated at 160,000 in 1971. Although no estimates are available for the number of Jordanians working abroad, it is believed that large numbers are working in Arab countries, Europe and elsewhere.

A comparison between the number of jobs to be created by the Plan and the number of unemployed shows that the Plan will result in a high employment rate.

b. Achieving an 8% annual growth rate of GDP

It is planned to increase GDP by 26% during the Plan period (8% annually), from an estimated JD 217 million in 1972 to JD 273.5 million in 1975.

Even though the planned increase in production reflects productivity growth in all sectors, the Plan aims at achieving the following goals at the sectoral level :

Agriculture

Income from this sector is projected to increase during the Plan period by 20.2% when compared with 1972, or 28.5% when compared with 1971, at an average annual growth rate of 6.4%. Such a growth rate will come about by expanding land utilization and irrigation in the Jordan Valley, the Southern Ghors and the highland areas, by applying suitable techniques for the production of crops, by improving marketing methods and by upgrading livestock.

Industry and Mining

The Plan aims at increasing income from this sector during the Plan period by 47.9% when compared with 1972, or 69% when compared with 1971, at an average annual growth rate of 14%. This will be made possible by expanding the production and marketing of phosphates, making use of unutilized productive capacity in existing industries (estimated at 25% — 30%), and carrying out new industrial and mining projects: ceramics, glass, chemical fertilizers and mining of clay, tripoli and feldspar.

Electricity and Water Supply

The aim of the Plan is to increase income accruing from these services during the Plan period by 58.6% as compared with 1972, or 75% compared with 1971, at an average annual growth rate of 16.6%. These rates would meet expected increases in demand for electric power by the various projects and by domestic consumption.

Construction

Income from construction is planned to increase during the Plan period by 37.3% compared with 1972, or 58% compared with 1971, at an average annual growth rate of 11.2%. This is attributed to a larger volume of investment in irrigation, roads, railways, government and residential buildings and other construction projects.

Services

The Plan aims at increasing income from this sector (transport, trade, banking and finance, ownership of dwellings, public administration and defence and other services) by 27.1% compared with 1972 or 22.2% compared with 1971, at an average annual growth rate of 6.9%.

Table (1) illustrates the planned average growth rates of income from the the different sectors.

While the average annual growth rate of the services sector is 6.9%, the rate for the directly productive sectors (agriculture, industry and mining, electricity and water supply, and construction) is 9.9%.

Table 1

GROWTH OF ECONOMIC SECTORS

(in percentages)

	Total Increase		Average Annual Rate	
	1975/1971	1975/1972	Compared with 1971	Compared with 1972
1) Agriculture	28.5	20.2	6.4	6.4
2) Industry and Mining	69	47.9	14.0	14.0
3) Electricity & Water Supply	75	58.6	15.3	16.6
4) Construction	58	37.3	12.1	11.2
5) Transportation	14	8.8	3.4	2.9
6) Wholesale and Retail Trade	30	24.8	6.8	7.6
7) Banking	27	21.7	6.2	6.8
8) Ownership of Dwellings	33	25.6	7.0	7.9
9) Public Administration and Defence	30	26.6	6.8	8.1
10) Services	24	18.1	5.5	5.7
11) Gross Domestic Product (at factor cost)	33.8	26.0	7.6	8.0
12) Indirect Taxes	61.2	36.9	12.7	11.0
13) Net Factor Income from abroad	9.8	16.9	2.3	5.4
14) Gross National Product (at Market Prices)	34.9	26.6	7.7	8.2

This disparity is attributable to the fact that special consideration is being given by the Plan to the directly productive sectors. The relative importance of these sectors in GDP will increase from 34.4% in 1971 and 35.6% in 1972 to 37.6% in 1975, as is illustrated in Table 2 .

The GNP will increase by 34.9% compared with 1971 or 26.6% compared with 1972, increasing from JD 239.0 million in 1971 and an estimated JD 254.6 million in 1972 to JD 322.5 million in 1975 (based on 1972 prices). Considering that the rate of population growth is estimated at 3.1%, this growth in GNP will increase average per capita income at 5% annually, i.e. from about JD 106 in 1972 to JD 123 in 1975.

c. Developing Economic and Social Activity Throughout the Kingdom

The Plan aims at developing economic and social activity throughout the Kingdom, by reorganizing and strengthening local government, expanding its duties, promoting the contribution of citizens to the development of local resources and creating incentives to attract investments in the various activities. This would develop the rural areas and limit continuing migration to the Amman - Zerka area.

d. Augmenting the Reliance of the General Budget on Domestic Revenues

The Plan anticipates that revenues will increase by 39.4% during the Plan period, from an estimated JD 38.8 million in 1972 to JD 54.1 million in 1975. Moreover, it is planned to raise the ratio of domestic revenues to total current revenues from 49.2% in 1972 to 57.4% in 1975. The ratio of current domestic revenues to current expenditures by the Central Government will increase from an estimated 51.2% in 1972 to 57.9% in 1975.

This goal also includes an increase in local government revenues during the Plan period by 47.9%, from an estimated JD 4.8 million to JD 7.1 million in 1975.

In order to achieve these goals, the Plan is relying on improvement in tax collection techniques, better rent assessment and imposition of new taxes, such as inheritance and capital gains taxes.

With this increase in domestic revenues for both the central and local governments, their ratio to GNP at factor cost will increase from 19% in 1972 to 21.2% in 1975. Central government revenues will increase from 16.9% in 1972 to 18.8% in 1975.

Table 2

Relative Importance of Various Sectors In Gross Domestic Product at Factor Cost

(in Percentage)

	1971	1972	1973	1974	1975
1) Agriculture	17.9	18.0	17.5	17.3	17.1
2) Industry and Mining	10.3	11.0	11.4	12.1	13.0
3) Electricity and Water Supply	1.3	1.3	1.5	1.6	1.7
4) Construction	4.9	5.3	5.8	5.9	5.8
5) Transportation	7.9	7.8	7.5	7.1	6.8
6) Trade	19.1	18.7	18.8	18.6	18.5
7) Banking	2.1	2.2	2.1	2.0	2.0
8) Ownership of Dwellings	6.9	6.8	6.8	6.8	6.8
9) Public Administration and Defence	18.8	18.2	18.2	18.3	18.3
10) Services	10.8	10.7	10.4	10.3	10.0
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0

e. Strengthening the Balance of Payments and Reducing the Deficit in the Trade Balance

It is expected that the Plan would result in a stronger balance of payments than that for the years 1969 - 1972. Annex 7 shows a deficit of JD 10.9, JD 1.5 and JD 11.8 million in the years 1969, 1970 and 1971 respectively. The deficit in 1972 is projected at JD 3.6 million. The Plan envisages achieving a balance in international payment (as is illustrated in Annex 7), so that no deficit would result except for JD 0.5 million in 1975.

While the deficit in the trade balance will increase from JD 64.8 million in 1972 to JD 68.5 million, JD 73.5 million and JD 78.2 million in 1973, 1974 and 1975 respectively, its annual rate of increase will be reduced from an average of 11.5 during the period 1967-1971 to 6.3 during the Plan period. Commodity imports are estimated to increase from JD 76.3 million in 1971 and an estimated JD 80 million in 1972 to JD 102 million in 1975, or by 27.5 compared with 1972. It should be noted that a large portion of the increase in imports is accounted for by an increase in the imports of machinery and equipment necessary for the new projects and by imports of raw materials required for economic activity.

On the other hand, the Plan aims at increasing income in foreign currencies by way of a 56.5 increase in commodity exports as compared with 1972, or from JD 11.4 million in 1971 to JD 15.2 million in 1972 and to JD 23.8 million in 1975. This is also to be achieved by a reactivation of tourism to Jordan and by encouraging Jordanians working abroad to remit a larger portion of their incomes to the Kingdom, and to spend their holidays and vacations at home. The Plan envisages that income from tourism will increase from JD 3.1 million in 1971 and an estimate of JD 4.0 million in 1972 to JD 10 million in 1975. Remittances of Jordanians working abroad will increase from JD 5 million in 1971 and an estimated JD 6 million in 1972 to JD 8.5 million in 1975.

3. Basic Assumptions

The Three Year Plan is based on the following assumptions :

a. The private sector should assume an active and ever-increasing role in the development effort. This necessitates keeping the growth rates of consumption at a low level and directing savings towards investment in development projects. This investment could either be done directly or by way of providing loans to the public sector in order to finance public development projects. Accordingly, the Plan assumes that *private consumption* expenditures will increase at an average annual rate of 6.8% as compared with an annual rate of increase of 7.2% in the disposable income of the private sector. This necessitates a reduction in the ratio of private consumption to income from 87.9% in 1972 to 86.8% in 1975. Moreover, the ratio of private consumption to GNP should decrease from 76.9% in 1972 to 73.8% in 1975, as shown in Table 3.

Private consumption expenditures will increase from JD 182.7 million in 1971 and an estimated JD 195.9 million in 1972 to JD 238.1 million in 1975. This will result in a 3.6% annual improvement in per capita income, taking into account the 3.1% annual rate of population growth.

Private savings will increase at rates higher than those of consumption, from JD 28.4 million in 1971 and an estimated JD 27 million in 1972 to JD 36.2 million in 1975, at an average annual rate of 10.3%.

Table 3

Some Economic Indicators of the Private Sector

(JD million)

	1971	1972	1973	1974	1975	average annual growth rate during the plan period
1) Disposable income	211.1	222.9	238.7	256.7	274.3	7.2%
2) Private Consumption	182.7	195.9	204.1	221.4	238.1	6.8%
3) Private saving	28.4	27.0	34.6	35.3	36.2	10.3%
4) Ratio of private consumption to disposable income	86.5%	87.9%	85.5%	86.2%	86.8%	
5) Ratio of consumption to the Gross National Product	76.4%	76.9%	74.2%	74.1%	73.8%	
6) Ratio of savings to disposable income	13.5%	12.1%	14.5%	13.8%	13.2%	

Note: Disposable Income equals Current Income of the private sector minus indirect taxes and current transfers from the private sector to the public sector and abroad.

b. The Plan assumes that Government consumption expenditures will increase at an annual growth rate of 8%, from JD 62.3 million in 1971 and an estimated JD 68.6 million in 1972* to JD 86.4 million in 1975. While expenditures on educational, health and social services will increase during the Plan period by 60.4%, those on general administration will increase by 43.9%. The Plan also assumes that the central and local governments' current expenditures will increase at an annual rate of 7.4%, from JD 72.3 million in 1971 and an estimated JD 79.1 million in 1972 to JD 97.9 million in 1975. On the other hand, current Government revenues are assumed to increase at an annual rate of 6.6%, from JD 76.4 million in 1971 and an estimated JD 83.6 million in 1972 to JD 101.2 million in 1975. The rate of increase in Government consumption expenditures is attributable to the priority given to services projects within current expenditures.

c. Various countries and international agencies are expected to respond favourably to Jordan's determination to resume the momentum of economic and social development. This will be reflected in:

1. A continuation of financial budget support, which is assumed by the Plan not to fall below JD 40 million annually during the Plan period. In the period 1967-1972, budget support averaged JD 40.3 million.

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* Part of this increase is attributable to a reclassification of certain items of development expenditures and their incorporation into current expenditures (1972 Budget Law).

Table 4

Some Economic Indicators of the Public Sector

(JD million)

	1971	1972	1973	1974	1975	Average annual growth rate during the plan period
1) Public consumption	62.3	68.6	74.1	80.0	86.4	8%
2) Government current expenditures	72.3	79.1	85.0	91.2	97.9	7.4%
3) Government current revenues	76.4	83.6	88.5	94.8	101.2	6.6%

2. An increase in economic and technical assistance to JD 6, JD 5.5 and JD 5 million in 1973, 1974 and 1975 respectively.

3. The provision of soft loans to finance development projects. The amount of such loans is assumed to be JD 53 million during the Plan period.

4. An increase in private foreign investments and capital remittances from abroad to the private sector, to reach JD 6 million during the Plan period.

d. The existence of a suitable climate for development, achieved by internal stability in the Kingdom.

4. Policies and Measures

The achievement of the Plan goals necessitates the application of a number of policies and measures related to investments and sources of finance, together with organizational measures that aim at improving economic efficiency. Consequently, the Three Year Plan is not limited to just a group of projects to be executed but has adopted other important measures, such as creating a basic and suitable institutional framework, modernizing and improving the performance of the Government system, providing a suitable climate for the private sector, emphasizing manpower training and adopting suitable economic policies.

a. Investments of the Plan

One of the most important means of achieving the goals of the Plan is to invest in the economic sectors during 1973-1975 at rates higher than those in previous years, which will increase the productive capacity of the Jordan economy and move it along the path of self-sustained growth.

It is estimated that fixed investments during the Plan years will amount to JD 179 million, distributed as follows:

JD 58 million in 1973, JD 60.3 million in 1974 and JD 60.7 million in 1975. As a result, the ratio of fixed investment to GNP will increase from an average of 17.2% for the period 1967-1971 to 23.5% during the Plan years.

Investments during the Plan Period

JD million

	1973	1974	1975	Total	%
Public Sector	35.1	34.7	29.8	99.6	55.6
Private Sector	22.9	25.6	30.9	79.4	44.4
Total	58.0	60.3	60.7	179.0	100.0

Investment by the public sector will acount for 55.6% of the Plan's total investment, while the private sector's investment will account for the rest. Consequently, the Plan increases the Government's share in capital formation which, for the period 1967-1971, averaged 46.9% of total capital formation. The distribution of investment among the Plan years was taken into account, so that the relative importance of public investment will increase during the first two years and decline in the third year, while private investment will increase gradually and clearly. This trend could be explained by the recession which occurred in the private sector following the 1970 disturbances. The private sector is expected to resume its activities in full, owing to greater public investments, to a more suitable climate and to better incentives.

The Plan investments are distributed among the various economic sectors in a manner that aims to achieve the sectoral goals shown in Table 5. The economic sectors of agriculture, irrigation, mining, industry, tourism, electricity, transport, communications and trade will account for 63.7% of total investments, while social sectors will receive 36.3%.

The following criteria were used to determine the projects to be executed and their priorities :

1. Projects that were begun before the Plan years.

2. The project's direct or indirect contribution to the productive capacity of the economy. Although direct, high-yield projects were given priority and because the Plan is considered a new point of departure for the development effort in the Kingdom, the length of the gestation period of projects was given secondary importance.

3. The project's contribution to the utilization of local raw materials. Priority was given to mining and industrial projects that rely on local raw materials and to those projects that enhance the integration of economic activity.

4. The increase in the Kingdom's eaarnings of foreign exchange and the reduction of such payments.

5. The project's contribution to the utilization of the labour force.

b. Sources of Finance

The Plan includes certain projects whose sources and amounts of finance are already determined. Other projects are included whose sources of finance have not been determined in detail ; these constitute additional investment opportunities available to the private sector and to foreign investors. Consequently, the Plan investments will be financed from the following sources :

Table 5

Three Year Plan Investments by Sector

(JD 000)

		Total Investments	%	Public Sector Investments	Private Sector Investments
1)	**Agriculture**	13,020	7.2	8,937	4,083
2)	**Irrigation**	14,636	8.2	14,638	—
3)	**Industry and Mining**	26,120	14.6	5,810	20,310
4)	**Tourism and Antiquities**	7,170	4.0	2,105	5,065
5)	**Electricity**	9,781	5.5	5,700	4,081
6)	**Transportation**	35,812	20.0	27,812	8,000
7)	Communications	6,712	3.7	6,712	—
8)	**Trade**	775	0.4	125	650
	Total of Economic Sectors	114,026	63.7	71,837	42,189
9)	Education and Youth Welfare	10,914	6.1	7,673	3,241
10)	**Health**	1,480	0.8	880	600
11)	**Social Affairs and Labour**	1,455	0.8	1,395	60
12)	**Housing and Government Buildings**	34,890	19.5	3,420	31,470
13)	**Municipal and Rural Affairs**	14,758	8.2	14,108	650
14)	**Awqaf**	1,214	0.7	—	1,214
15)	**Statistics**	263	0.2	263	—
	Total of Social Sectors	64,974	36.3	27,739	37,235
	Total Investments	179,000	100.0	99,576	79,424

1. The Public Sector

The Public Sector's investments will amount to JD 99.6 million from the following sources :

a. The current surplus to be realized during the Plan period as follows : JD 3.5 million in 1973, JD 3.6 million in 1974 and JD 3.3 million in 1975. Therefore, this source will provide JD 10.4 million.

b. Domestic borrowing will contribute JD 47.7 million to investments by the public sector, distributed as follows : JD 16.6, JD 16.6 and JD 14.5 million during the Plan years. Such funds will be made available by new issues of development bonds by the Government and public institutions, amounting to JD 27.6 million, and by borrowing from the banking system either directly or through issuing treasury bills to the amount of JD 20.1 million.

The reliance of the Plan on this source and by such amounts is a new concept in the Kingdom, aiming at mobilizing local resources for development. It is also based on the assumption that it is necessary to cover the deficit between the Government's capital expenditures and available resources through recourse to domestic borrowing.

c. Foreign economic and technical assistance from bilateral and international sources is expected to amount to JD 16.5 million in the three years : JD 6 million in 1973, JD 5.5 million in 1974 and JD 5 million in 1975.

d. Foreign loans are expected to amount to JD 53 million during the Plan years. Foreign economic and technical assistance and foreign loans are important because they make available the necessary foreign exchange to execute the Plan.

2. The Private Sector

Investments by the private sector amounting to JD 79.4 million will come from the following sources :

a. **Savings :** On the basis of the assumption that private consumption will increase at an average rate of 6.8%, savings would increase at an average annual rate of 10.3%. Consequently, they are estimated at JD 34.6 million for 1973, JD 35.3 million for 1974 and JD 36.2 million for 1975.

It is worth noting that these savings are in excess of the sector's finance contribution by JD 26.7 million. This constitutes a source for domestic public borrowing.

b. **Foreign Loans and Assistance** :The Plan estimates the net amount of such loans and assistance at JD 8 million during the Plan years.

3. Fiscal Policy

The execution of the Plan necessitates the application of fiscal policies that are in harmony with the Plan's requirements and assumptions in relation to the growth rates of current expenditures and revenues and the current surplus. To achieve this, it is imperative that the following policies be adopted :

a. Public Revenues

The Plan aims at increasing current and capital public revenues by 33% or at an average annual rate of 10.0%, from JD 97.9 million in 1971 and an estimated JD 104.3 million in 1972 to JD 138.7 million in 1975.

Although the Plan includes several tax exemptions under the Encouragement of Investment Law and by virtue of other measures, the emphasis is on the improvement in the collection of taxes, fees and other public revenues. It is estimated that public revenues will increase by 19.4%, from JD 71.9 million in 1971 and an estimated JD 78.8 million in 1972 to JD 94.1 million in 1975.

The Plan estimates that direct taxes will increase by 93.9%, from JD 3.3 million in 1971 and an estimated JD 4.9 million in 1972 to JD 9.5 million in 1975. On the other hand, indirect taxes are expected to increase by 35.4%, from JD 19.2 million in 1971 and an estimated JD 22.3 million in 1972 to JD 31 million in 1975. This is mainly due to an increase of import duties by 42.8%, from JD 8.7 million in 1971 and an estimated JD 10.5 million in 1972 to JD 15 million in 1975, and to an increase in excise taxes by 28.2%, from JD 6.7 million in 1971 and an estimated JD 7.8 million in 1972 to JD 10 million in 1975.

As for local government revenues, they are expected to increase by 47.9%, from JD 4.5 million in 1971 and an estimated JD 4.8 million in 1972 to JD 7.1 million in 1975. This increase comes from higher direct and indirect taxes and from other revenues.

In order to realize this income in public revenues, it is imperative that the following measures be adopted :

1. Improving methods of tax collection (in particular income tax), by adopting accurate methods of assessing the required taxes, by training officials and by reducing administrative and judicial obstacles which hinder the speed of tax collection.

2. Reassessing the value of buildings and lands, resulting in an increase in local government revenues from direct taxation by 50%, from JD 0.9 million in 1971 and an estimated JD 1.0 million in 1972 to JD 1.5 million in 1975.

3. Amending the Public Debt Law. Paragraph A of Article 5 of Public Debt Law No. 1 for 1971 limits the volume of outstanding debt to JD 8 million. The Plan contemplates that domestic borrowing is one of the most important sources of finance and requires that this domestic public borrowing should amount to JD 27.6 million. Consequently, Article 5 of this law ought to be amended and the ceiling on outstanding debt be raised, provided that bonds shall be issued to finance development projects only.

4. Imposing an inheritance tax. Inheritance taxes are among those measures that aim at a more equitable distribution of wealth. Therefore, the Plan recommends the application of an inheritance tax as of 1973.

5. Imposing a capital gains tax. Income Tax Law No. 25 for 1964 did not take into consideration capital gains for tax purposes. This has meant that a certain amount of income resulting from certain activities which do not directly contribute to economic development (such as gains accruing from building and land sales) is not subject to income tax. The Royal Fiscal Commission recommended, as early as 1960, that such gains should be taxed, and so did the Seven Year Program.

   The Plan suggests the introduction of necessary legislation to tax such gains progressively.

6. Making an effort to obtain foreign aid estimated by the Plan as follows :budget support (JD 40 million per year), foreign loans (JD 53 million) and economic and technical assistance (JD 16.5 million)

Public expenditure

While the Plan aims at increasing public revenues from domestic sources and assumes a specified level of foreign aid, it estimates that expenditures will increase at an average annual rate of 7.4%, from an estimated JD 79.1 million in 1972 to JD 97.9 million in 1975. Of this, Central Government recurring expenditures will increase from an estimate of JD 66.4 million in 1972 to JD 83.1 million in 1975, at an average annual rate of 7.7%.

The Plan also aims at increasing Government capital expenditures from JD 15 million in 1971 and an estimated JD 21 million in 1972 to JD 29.8 million in 1975. Other capital expenditures include foreign loan repayments, which are estimated to increase from JD 1.8 million in 1971 and JD 6.1 million in 1972 to JD 8.5 million in 1975. On the other hand, loans and subsidies to the private sector amounted to JD 1.1 million in 1971 and are estimated at JD 2.5 million for 1975.

With regard to public expenditures, the Plan suggests the following :

1. Preparing the Government Budget in accordance with the Plan requirements concerning recurring and capital expenditures.

2. Taking the necessary steps to economize on current expenditures.

3. Developing a functional classification of the Budget.

Modernizing Government Administration

The Plan requires the existence of a Government system which is capable of efficiently executing and following up on recommended development projects, measures and polices. The existing system in Jordan has proved its ability to perform such a task. Government administration has witnessed a market expansion during the past decade which has gone hand in hand with the expansion of services provided by the state. Since 1964, several new ministries and public institutions have been created. Among these are : the Ministry of Informatoin and Culture, the Central Bank of Jordan, the Ministry of Interior for Municipal and Rural Affairs, the Industrial Development Bank, the Jordan Regional Corporation for the Jordan River and its Tributaries, the Ministry of Transport, the Housing Corporation, the Municipal and Village Loan Fund, the Natural Resources Authority, the Youth Organization, the Ministry of Tourism and Antiquities, the Ministry of Awqaf, Holy Places and Islamic Affairs, the Television Corporation and the Royal Scientific Society.

The expansion in services provided by the Central Government has led to more than a 50% increase in the numbers of classified government employees who increased from 12,019 in 1964 to 18,278 in 1971. The number of unclassified and contract employees increased from 6,505 in 1964 to 9,684 in 1971. The Ministry of Education employs the greatest number, viz. 13,617 in 1971.

Jordan pays particular attention to modernizing of Government administration. All Royal Messages of Designation during the past years have included instructions to this effect. On June 3, 1972, His Majesty King Hussein addressed a message to the Prime Minister urging him to take the necessary steps to reorganize and modernize the administration as a prerequisite for economic and social development.

The Plan recommends the following measures with regard to government administration :

a. Forming a committee of experts to study the distribution of the State's duties and to define responsibilities at all levels, in order to limit bureaucratic routine and ensure efficient performance. In particular, the Committee ought to present recommendations with regard to the following :

    1. Removing duplication and limiting overlapping in planning and execution among the various Government departments.

2. Gradually shifting certain responsibilities and duties to local government.

3. Modernizing existing legislation and completing those of certain ministries and departments, in order to determine clearly their duties and responsibilities.

4. De-centralization of duties, in order to give ministers and administrators the time they need for policy - making, planning, control and follow-up rather than concentrating their attention on matters of daily routine.

b. Providing pre-and in-service training for employees.

c. Establishing a pension fund and a provident fund for government employees.

d. Establishing the following corporations and institutions :

1. An Industrial Development Corporation.

2. An External Trade Corporation.

3. A Housing Bank and Saving and Loan Associations.

4. A Central Social Security and Provident Fund System.

5. An Office for the Encouragement of Investment.

e. Establishing an independent commission (The Jordan Valley Commission), whose main aim would be to develop the Jordan Valley economically and socially.

f. Publishing a pamphlet showing all machinery and equipment owned by the Government in its ministries and corporations.

g. Creating a planning unit in every department to be headed by a specialized official subordinate to the under-secretary or department head, and a planning committee chaired by the minister.

h. Setting up a special fund at the Industrial Development Bank to provide easy-term loans to skilled tradesmen and small industries.

i. Taking the necessary measures to create a telecommunications corporation and providing it with an efficient staff.

j. Completing the structure of the Hotel and Rest House Management Corporation.

k. Gathering the necessary staff to implement the Postal Savings Law.

l. Establishing an "Operations Room" whose function would be to collect quickly and accurately information pertaining to the Plan projects, to analyze causes of delay, to furnish policy-makers with information to take the necessary steps to remove any obstacles to follow up on the execution of projects and to evaluate achievements and their contribution to realizing planned goals.

m. Appointing managers for the Plan projects.

Financial Institutions

Financial institutions play an important role in the development process because they constitute the means of accumulating and directing savings for investment purposes. Moreover, monetary policy is transmitted through these institutions, exercising an effect on national income, economic activity and the price level. There exists in the Kingdom, at the present, a suitable financial system. The Central Bank of Jordan was established in 1964, and there are nine commercial banks, five specialized-credit institutions, and sixteen Jordanian, Arab and non-Arab insurance companies. A public insurance corporation was established in 1971, specializing in insurance against non-commercial risks.

The Plan places the following responsibilities on financial institutions :

a. Expanding public debt management. The Central Bank manages the public debt, which comprises treasury bills (first issued in 1969, with an outstanding value at the end of 1971 of JD 21 million) and development bonds (first issued in mid-1971 and amounting to JD 6 million at the end of June 1972).

   One of the main sources of finance for the Plan is domestic borrowing. The Treasury Bill issues are expected to increase during the Plan period. It is also expected that some public corporations (e.g. the Housing Corporation) will issue bonds. The volume of development bonds will increase during the Plan period. This necessitates an amendment of the Public Debt Law in order to remove the ceiling on the volume of the outstanding public debt.

b. Providing bank loans to the Government and to public corporations to finance development projects.

c. Achieving internal and external economic stability through the cooperation of the Central Bank, the Ministry of National Economy and the Ministry of Finance.

   In order to carry out these duties, the Plan recommends the application of the following policies and measures in addition to the establishment of the financial institutions mentioned above :

   a. Putting an end to the payment of interest on commercial bank deposits at the Central Bank. This would increase Government revenues and induce banks to find alternative avenues of investing funds.

b. Imposing qualitative controls over commercial bank credit in order to direct a major portion of such credit to the Plan's projects.

c. Looking into the possibility of establishing a stock market.

d. Controlling the uses of funds available to insurance companies operating in the Kingdom, through more effective application of the Insurance Law.

Annex 1

Industrial Origin of Gross Domestic Product

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1) Agriculture	38.7	27.5	36.3	32.2	36.5	39.0	41.1	43.8	46.9
2) Manufacturing and Mining	17.5	20.1	23.1	19.8	21.0	24.0	26.8	30.7	35.5
3) Electricity and Water Supply	1.8	2.3	2.1	2.4	2.6	2.9	3.4	4.0	4.6
4) Construction	8.7	9.8	10.9	7.8	10.0	11.5	13.5	15.0	15.8
5) Transport	14.8	14.6	16.0	15.[illegible]	16.2	17.0	17.5	17.9	18.5
6) Wholesale and retail trade	39.1	29.1	38.4	38.0	39.0	40.6	44.0	47.1	50.7
7) Banking and finance	3.4	3.0	4.2	4.2	4.4	4.6	4.9	5.2	5.6
8) Ownership of dwellings	11.9	12.3	12.8	13.6	14.2	14.8	16.0	17.2	18.6
9) Public administration and defence	26.0	33.3	36.3	37.9	38.5	39.5	42.7	46.3	50.0
10) Services	15.2	16.6	18.3	21.6	22.0	23.1	24.5	26.0	27.3
11) Gross Domestic Product at factor cost	177.1	168.6	198.4	193.4	204.4	217.0	234.4	253.2	273.5
12) Indirect taxes	17.6	18.4	21.4	20.3	21.4	25.2	27.7	31.5	34.5
13) Net factor income from abroad	11.2	10.4	14.0	12.6	13.2	12.4	12.6	13.8	14.5
14) Gross national product at market prices	205.9	197.4	233.8	226.3	239.0	254.6	274.7	298.5	322.5

Annex 2

Expenditures on Gross National Product

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1) Private consumption	158.5	153.4	166.5	170.0	182.7	195.9	204.1	221.4	238.1
2) Government consumption	46.3	58.6	64.4	62.5	62.3	68.6	74.1	80.0	86.4
3) Gross private fixed capital formation	11.6	14.0	22.7	17.8	23.0	17.0	22.9	25.6	30.9
4) Gross public fixed capital formation	15.0	16.0	16.6	10.0	15.0	21.0	35.1	34.7	29.8
5) Change in stocks	— 0.7	7.7	26.0	11.0	13.1	7.5	—	—	—
6) Exports of goods and services	27.7	28.3	32.3	32.3	23.0	29.2	32.5	37.5	45.8
7) **Less:** Imports of goods and services	63.7	91.0	108.7	89.9	93.3	97.0	106.6	114.5	123.0
8) Net factor income from abroad	11.2	10.4	14.0	12.6	13.2	12.4	12.6	13.8	14.5
9) Expenditures on Gross National Product	205.9	197.4	233.8	226.3	239.0	254.6	274.7	298.5	322.5

Annex 3

Government Current Revenues — Central Government and Municipalities

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
A. Central Government									
1. Income from property and entrepreneurship	4.1	4.2	5.9	5.9	8.7	7.1	7.8	8.2	8.3
2. Indirect taxes	15.6	16.8	19.2	18.1	19.2	22.9	25.1	28.5	31.0
3. Direct taxes	2.6	2.5	2.5	2.8	3.3	4.9	5.8	7.0	9.5
4. Current transfers from house-holds	3.2	2.8	4.4	3.4	3.9	3.9	4.4	4.9	5.3
5. Total Domestic Revenues	25.5	26.3	32.0	30.2	35.1	38.8	43.1	48.6	54.1
6. Current transfers from abroad	45.3	46.9	39.9	36.8	36.8	40.0	40.0	40.0	40.0
Current Revenues of Central Government (5+6)	70.8	73.2	71.9	67.0	71.9	78.8	83.1	88.6	94.1
B. Municipalities									
1. Income from property	0.6	0.5	0.7	0.5	0.5	0.6	0.8	1.0	1.2
2. Indirect taxes	2.0	1.6	2.2	2.1	2.2	2.3	2.6	3.0	3.5
3. Direct taxes	0.3	0.2	0.3	0.8	0.9	1.0	1.1	1.3	1.5
4. Current transfers from households	1.2	0.9	0.6	0.3	0.9	0.9	0.9	0.9	0.9
Current Revenues of Municipalities	4.1	3.2	3.8	3.7	4.5	4.8	5.4	6.2	7.1
C. Total Current Revenues of General Government (A + B)	74.9	76.4	75.7	70.7	76.4	83.6	88.5	94.8	101.2

Annex 4

Government Current Expenditures

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1. Public administration	3.4	4.1	4.9	5.4	5.1	6.7	7.3	8.4	9.6
2. Defence	24.9	35.2	38.9	33.1	33.8	36.3	37.4	38.9	40.0
3. Justice and police	3.6	3.6	4.1	4.8	4.9	5.2	5.5	5.9	6.5
4. Education	4.7	4.9	5.4	6.5	6.2	6.6	8.6	9.5	10.6
5. Health services	1.7	2.0	2.0	2.2	2.0	2.6	3.2	3.5	3.9
6. Social services	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.7	0.9
7. Communications	1.1	1.3	1.2	1.5	1.2	1.5	1.5	1.8	2.2
8. Other services	2.1	2.2	2.3	2.4	1.4	2.3	2.6	2.9	3.5
9. Pension payments	2.9	3.5	4.0	4.1	5.2	4.8	5.1	5.5	5.9
10. Current Expenditures of Central Govt., excluding transfers	44.6	57.0	63.0	60.2	60.0	66.4	71.6	77.1	83.1
11. Less employees' pension contributions	– 0.6	– 0.8	– 0.9	– 0.9	– 1.0	– 1.2	– 1.1	– 1.1	– 1.2
12. Current Expenditures of Municipalities	2.3	2.4	2.3	3.2	3.3	3.4	3.6	4.0	4.5
13. Total Consumption Expenditures	46.3	58.6	64.4	62.5	62.3	68.6	74.1	80.0	86.4
14. Transfers from Central Government to private sector	3.1	3.0	9.0	8.3	8.0	8.0	8.0	8.0	8.0
15. Transfers from municipalities to private sector	0.6	0.7	0.8	0.9	0.9	0.9	1.0	1.0	1.0
16. Transfers to rest of the world	0.8	0.9	0.8	0.7	1.1	1.6	1.9	2.2	2.5
17. Total Current Expenditures	50.8	63.2	75.0	72.4	72.3	79.1	85.0	91.2	97.9

Annex 5

General Government Capital Account

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1. Current revenues	74.9	76.4	75.7	70.7	76.4	83.6	88.5	94.8	101.2
2. Current expenditures	50.8	63.2	75.0	72.4	72.3	79.1	85.0	91.2	97.9
3. Current surplus	+ 24.1	+ 13.2	+ 0.7	– 1.7	+ 4.1	+ 4.5	+ 3.5	+ 3.6	+ 3.3
4. Capital transfers from abroad	0.8	0.4	0.5	0.9	1.4	2.0	6.0	5.5	5.0
5. Foreign loans	2.0	5.0	4.5	0.6	8.0	13.0	17.0	18.0	18.0
6. I.M.F. Compensatory Financing	–	–	–	–	1.6	—	—	—	—
7. Securities and Bonds of Government and Public Corporations	–	–	–	–	3.0	5.0	10.0	9.9	7.7
8. Borrowing from the banking system	–	–	8.4	4.2	9.1	0.7	6.6	6.7	6.8
9. Total revenues available for capital expenditures (3 thru 8)	26.9	18.6	14.1	4.0	27.2	25.2	43.1	43.7	40.8
10. Expenditures on gross capital formation	15.0	16.0	16.6	10.0	15.0	21.0	35.1	34.7	29.8
11. Repayment of external debt	0.3	0.5	0.6	0.9	1.8	6.1	6.3	7.0	8.5
12. Loans and grants to private sector	1.0	3.0	1.3	1.0	1.1	1.2	1.7	2.0	2.5
13. Total capital expenditures	16.3	19.5	18.5	11.9	17.9	28.3	43.1	43.7	40.8
14. Change in monetary balances (9 - 3)	+ 10.6	– 0.9	– 4.4	– 7.9	+ 9.3	—3.1	—	—	—

Annex 6

Receipts and Payments of the Private Sector

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1. Income from property and employment	183.7	174.1	205.2	199.6	208.4	222.4	238.4	257.8	278.5
2. Current transfers from Government	3.6	3.7	9.8	9.2	8.9	8.9	9.0	9.0	9.0
3. Current transfers from abroad	4.8	15.3	4.0	3.7	2.8	3.0	3.5	4.0	4.0
4. Current income of Private sector	192.1	193.1	219.0	212.5	220.1	234.3	250.9	270.8	291.5
5. Consumption expenditures	158.5	153.4	166.5	170.0	182.7	195.9	204.1	221.4	238.1
6. Direct taxes	2.9	2.7	2.7	3.6	4.2	5.9	6.9	8.3	11.0
7. Current transfers to Government	4.4	3.7	5.0	3.7	4.8	4.8	5.3	5.8	6.2
8. Total current expenditures	165.8	159.8	174.2	177.3	191.7	206.6	216.3	235.5	255.3
9. Surplus on current transactions (4 - 8)	26.3	33.3	44.8	35.2	28.4	27.7	34.6	35.3	36.2
10. Loans and grants from Government	1.0	3.0	1.3	1.0	1.1	1.2	1.7	2.0	2.5
11. External loans and subscriptions (net)	—	—0.1	0.8	—0.1	—0.2	—	1.4	2.8	3.8
12. Resources available for capital expenditures (9 thru 11)	27.3	36.2	46.9	36.1	29.3	28.9	37.7	40.1	42.5
13. Expenditures on capital formation	10.9	21.7	48.3	28.8	36.1	24.5	22.9	25.6	30.9
14. Net change in monetary balances (12 - 13)	+ 16.4	+ 14.5	—1.4	+ 7.3	—6.8	+4.4	+ 14.8	+ 14.5	+ 11.6

Annex 7
International Transactions
(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
1. Exports of goods	11.3	14.3	14.8	12.2	11.4	15.2	17.5	20.0	23.8
2. Travel and tourism	6.8	4.6	4.5	4.2	3.1	4.0	5.0	7.0	10.0
3. Other services	9.6	9.4	13.0	15.9	8.5	10.0	10.0	10.5	12.0
4. Exports of goods and services.	27.7	28.3	32.3	32.3	23.0	29.2	32.5	37.5	45.8
5. Remittances of Jordanians working abroad	6.6	4.1	6.9	5.5	5.0	6.0	6.5	7.5	8.5
6. Interest and profits	4.4	5.9	6.8	6.8	6.0	5.5	5.5	5.5	5.5
7. Oil transit dues	1.1	1.3	1.1	1.0	3.4	2.6	2.6	3.0	3.0
8. Gross factor income from abroad	12.1	11.3	14.8	13.3	14.4	14.1	14.6	16.0	17.0
9. Current transfers to private sector	4.8	15.3	4.0	3.7	2.8	3.0	3.5	4.0	4.0
10. Current transfers to Government	45.4	46.9	39.9	33.5	31.3	40.0	40.0	40.0	40.0
11. Total Current Transfers	50.2	62.2	43.9	37.2	34.1	43.0	43.5	44.0	44.0
12. Total current receipts (4+8+11)	90.0	101.8	91.0	82.8	71.5	86.3	90.6	97.5	106.8

(Cont'd) ...

Annex 7 (Cont'd)

(JD million)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
13. Imports of goods	54.2	67.7	67.5	65.5	76.3	80.0	86.0	93.5	102.0
14. Travel and tourism	5.3	7.0	8.0	9.4	8.1	8.0	8.8	9.0	9.0
15. Other services	4.2	16.3	33.2	15.0	8.9	9.0	11.8	12.0	12.0
16. Imports of goods and services	63.7	91.0	108.7	89.9	93.3	97.0	106.6	114.5	123.0
17. Interest and profits	0.8	0.9	0.8	0.7	1.2	1.7	2.0	2.2	2.5
18. Current transfers from Government	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19. Total current payments	64.6	92.0	109.6	90.7	94.6	98.8	108.7	116.8	125.6
20. Surplus on current account	+25.4	+9.8	—18.6	—7.9	—23.1	—12.5	—18.1	—19.3	—18.8
21. Capital transfers to Government and private sector	0.8	0.4	0.5	0.9	1.4	2.0	7.0	7.5	8.0
22. Net loans to private sector	—	—0.1	0.8	—0.1	—0.2	—	0.4	0.8	0.8
23. Loans to Government	2.6	5.5	5.5	3.1	9.6	13.0	17.0	18.0	18.0
24. Repayment of Government loans and local authorities	—1.0	—1.1	—0.8	—1.4	—1.8	—6.1	—6.3	—7.0	—8.5
25. Net errors and omissions	5.4	1.8	1.7	3.9	2.3	—	—	—	—
26. Change of assets	+33.2	+16.3	—10.9	—1.5	—11.8	—3.6	—	—	—0.5

3. AGRICULTURE

The agricultural sector occupies an important place in the Jorda economy ; 20% of GDP comes from agriculture and about 40% o the total labour force is engaged in it. Exports of agricultural commodities represent 50% of the total value of exports. However this sector is still unable to satisfy the country's needs of variou food and agricultural products. Imports of these products durin the period 1967 - 1971 amounted to JD 19.5 million, while export during the same period did not exceed JD 5.2 million, which show a deficit in the trade balance of agricultural commodities of aroun JD 14.3 million.

1. General

Total agricultural output in the East Bank of Jordan comes from utilizing 6.7% of the land in this part of the Kingdom. This output is affected not only by the area utilized but also by a number of interrelated factors that necessitate the review of the general agricultural situation in the country in light of the following :

a) Natural Agricultural Areas

The agricultural areas in the East Bank of Jordan can be divided into three natural regions, namely the Ghor region, the Highland region and the Badia (desert) region.

1. The Ghor Region

This area is part of the Dead Sea basin that falls between the Yarmouk River in the north and Khneizere

Valley in the south, and between the Jordan River and the Dead Sea in the west and the Eastern highlands in the east. The whole area falls below sea level, and water for irrigation is available in this region. This region is characterized by its ability to produce more than one crop each year, and by its early production capability relative to other regions and neighbouring countries.

The Ghor region can be divided into two main divisions : the North Ghor and the South Ghor, with the Dead Sea in between.

Total cultivable area in the North Ghor is around 325,000 dunums, while in the South Ghor it is around 60,000 dunums. The main available water resources in the North Ghor are the Yarmouk River, Zerka River and side wadis which are all tributaries of the Jordan River. Annual discharge of these resources is around 660 million cubic meters. Water resources in the South Ghor are Mujeb, Haditheh and Hasa valleys, in addition to a number of springs. Annual discharge of these resources is around 90 million cubic meters. Some construction for irrigation purposes has been made as part of the phases of utilizing water resources for irrigation in the Ghor Area.

These projects helped place more land under irrigation and enhanced agricultural output of the Ghor regions.

2. The Highland Region

This region falls between the Yarmouk River and the Syrian borders in the north, Wadi Mousa in the south, Wadi Araba and the Ghor in the west and the Badia region that surrounds it from the east and the south. This region includes a hilly area of three parts. The first falls in the Irbid Governorate in the north, the second in the Amman and Balqa Governorates in the middle, extending from the Yarmouk River to Wadi Walla, while the third part falls in Karak and Ma'an Governorates, extending from Wadi Mujeb in the north to Wadi Mousa in the south.

Average rainfall is 200-600 mm. in the north and the middle parts and 200-300 mm. in the southern part of this region. Average volume of annual rainfall in this region represents 44% of the total annual volume of rainfall in the East Bank of Jordan. Rainfall in this region is charcterized by variation in volume, density and time from one year to another. It is the main water resource in this region and agriculture depends on it. The other sources of water for irrigation are : several scattered springs and a small amount of ground water in the Sama Sdood, Zarka, Ghuweir, and Shobak areas. Areas in this region that are partially irrigated from spring water are around 60,000 dunums, while areas under irrigation from ground water are around 9,500 dunums.

This region is subject to severe erosive factors as a result of the eradication of most of the trees by human action. Land holdings are generally fragmented and small in size. The main crops are wheat, barley, legumes, tobacco, vegetables and fruits. Terracing and planting fruit trees such as olives, grapes and stone fruits started only recently in this area, in addition to afforestation of some wide areas to control soil erosion.

3. The Badia (Desert) Region

This region falls south and east of the Highland region and occupies around 87% of the total area of the East Bank of Jordan. Its land is used for grazing purposes since livestock depends on the grass that grows in its valleys and rainfed areas. This region lost much of its economic importance as a result of over-grazing and the lack of organized grazing. Investigations and hydrological research have shown that its ground water in the north can irrigate 30,000 dunums, but only 17,000 dunums are presently utilized. Ground water in the south can irrigate 88,000 dunums of which only a few thousands are presently utilized.

Four agricultural stations have been established in this region, two in the north, one in the middle and one in the south. These stations work on delineating suitable crop rotations and plants for each area.

b) Agricultural Labour Force

In most of the rainfed areas, farmers are characterized by a traditional agricultural attitude, represented by poor planning in terms of the selection of varieties and quantities to be used or dates of planting or cost accounting. Modern methods, such as the use of improved seeds, chemicals and fertilizers and investment credits are not widely practised. People engaged in irrigated farming differ in their attitude to agriculture as compared to people engaged in dry-farming, for they produce for commercial purposes and consume very little of what they produce.

The labour force in the agricultural sector can be classified into three classes : landlords, tenants (rent or share-cropping basis) and hired hands. No legislation has been enacted to organize relations between landlords and tenants and to specify the rights of the agricultural labour force, as is the case in other sectors.

c) Organizational and Supporting Factors

1. Agricultural Holdings

The agricultural census of 1965 showed that the total number of agricultural holdings in Jordan was 93,000, 36% of which were less than 10 dunums and 70% less than 50 dunums. Most of these holdings were not economically feasible, as they were fragmented into several small pieces. This increased production costs, reduced investment incentives and led to a poor level of land utilization. It is worth noting, however, that the East Ghor Canal Law has now solved the problem of land fragmentation in the Jordan Valley and has ensured that the problem would not arise in the future. The South Ghor and Highland areas, however, still suffer from land fragmentation.

2. Agricultural Cooperatives

The agricultural cooperative movement started early in the fifties. There are 150 agricultural cooperatives in the East Bank, with a total number of 5,217 members. The cooperative system has played its traditional role of procuring seasonal loans, supplying production needs and aiding the marketing process, but on a small scale. The movement has not, however, played an active part in developing agriculture in Jordan to a satisfactory level in terms of broad group action, procurement of production materials, extensive marketing, land consolidation or profit increases. Recently, a number of small cooperatives in Arda, Irbid and Madaba have been consolidated into several multipurpose societies. These new societies are characterized by large membership, efficient work and full - time administration ; but they do not cover all areas, and the need still exists for more service-oriented agricultural cooperative societies, to provide the various services to farmers.

3. Agricultural Credit

Farmers' savings in Jordan are meagre and never satisfy agricultural investment, so they have to depend on other credit sources. The only two official agricultural credit agencies are: the Agricultural Credit Corporation (ACC) and the Jordan Cooperative Organization (JCO). In the last twelve years, the ACC issued a total of JD 9.3 million in loans for the purpose of land improvement, livestock development, purchase of machines and equipment, and farm construction. At the end of 1972, total outstanding loans amounted to JD 5.9 million; and annual loans during the last five years averaged JD 627,000. At the end of 1971, the JCO outstanding loans amounted to JD 770,000. Loans issued by both the ACC and JCO do not satisfy the capital-investment needs of the agricultural sector. Consequently, farmers have to borrow from banks and middlemen at a high rate of interest.

4. Other Agricultural Services

The Ministry of Agriculture started its agricultural research and extenion activities and services in the early fifties. A research station was establised in Deir Alla and an extension staff was employed to offer services to farmers in most agricultural areas. The development that took place since then, especially in the irrigated areas, requires further technical support to achieve continuity and improvement. This can be achieved through improving the quality and quantity of extension services and upgrading the efficiency of extension agents by providing them with adequate training, locally and abroad. In 1970, the extension staff was merged with the research staff to facilitate the dissemination of research findings.

In the other agricultural fields, the Ministry of Agriculture continued to offer veterinary services, give out seedlings of fruit trees, exercise pest and disease control, help farmers in terracing and soil conservation and to propagate developed seeds. The Ministry also offers marketing services such as grading and packing of fruits and vegetables in the North Shouneh and Wadi Yabes stations, providing market news including prices and quantities of local and foreign markets, and marketing of agricultural products through the Jordan Agricultural Marketing Organization.

The Agriculture Marketing Directorate was merged early in 1972 with the Agricultural Economics Directorate in order to organize marketing at the national level. This is in addition to what the Agricultural Marketing Corporation does in marketing agricultural production in the different markets.

2. Characteristics and Problems

a) Fragmentation and small size of agricultural holdings. This contributes to an increase in costs of production, limited investment and low agricultural output.

b) Prevalence of traditional cropping patterns that do not lead to maximum output and contribute to soil exploitation and a decrease in fertility.

c) Deterioration of land productivity as a result of erosion and the lack of sound soil and water conservation practices; also, cereal planting in the marginal areas and steppes and disorganized grazing. This has contributed to aridity and mass cattle destruction in dry seasons. In addition, areas planted with forest and fruit trees are very small.

d) Lack of effective coordination betweeen the agencies involved in agriculture, namely the Ministry of Agriculture, Ministry of National Economy, Ministry of Education, Jordan River and Tributaries Regional Corporation, Natural Resources Authrity ,Land and Survey Department, Agricultural Credit Corporation and Jordan Cooperative Organization. This lack of coordination causes waste, and poor guidance and leads to conflict in objectives and means of communication between these agencies and the farmers.

e) Lack of organized bodies that represent farmers and strengthen relations among them ; also, weakness of the cooperative societies, reflected in their small numbers, limited memberships, and poor services such as the supply of agricultural inputs and the marketing of agricultural commodities.

f) Weakness of agricultural marketing, reflected in the lack of efficient marketing services and facilities. This has resulted in a proliferation of middlemen and hence to higher consumer prices and lower farmer revenues.

g) Utilization of a large percentage of the cultivable land on a rent or share cropping basis, which causes a decrease in national agricultural output as a result of inequality in cost and return sharing between the landlords and the tenants and lack of security and investment incentives for the tenant.

h) prevalence of seasonal, disguised, and chronic unemployment of farmers.

i) Insufficient capital avialable for agricultural investment and some complicated lending procedures.

j) Inefficient utilization of water resources for agricultural purposes, which limits the use of land for intensive and diversified farming of high and stable productivity. This type of land does not exceed 3.9% of total cultivated land.

k) Low farmer income in general as a result of the above mentioned factors and of the high cost of production and low prices and crops, in addition to lack of crops diversification.

3. Goals

a) Increasing agricultural income from JD 36.5 million in 1971 to JD 46.9 million in 1975, a 28.5% increase.

b) Increasing the output of agricultural commodities and animal products in the East Bank, according to the following schedule :

Crop	Average Production 1967-1971 (1000 tons)	Estimated Production in 1975 (1000 tons)	% of Increase in production 1975 over 1967/1971
1. **Field Crops**			
Wheat	134.4	160.0	19
Lentils	18.8	22.0	17
Fodders	93.4	170.2	82
Others	4.9	7.6	55
Total	251.5	359.8	43
2. **Vegetables**			
Tomato	155.6	190.0	22
Eggplants	37.7	47.0	25
Pepper	8.2	11.0	34
Potato	2.2	8.0	264
Onion and Garlic	3.5	7.6	117
Others	84.5	115.0	36
Total	291.7	378.6	29
3. **Fruit Trees**			
Olives	15.5	24	54
Grapes	14.9	21	40
Citrus	23.8	40	68
Banana	14.6	17	16
Others	7.8	11	41
Total	76.6	113	47

Crop	Average Production 1967-1971 (1000 tons)	Estimated Production in 1975 (1000 tons)	% of Increase in Production 1975 over 1967/1971
4. Animal Products			
Meat	15.9	25.6	84
Dairy Products	69.6	84.8	21
Eggs (in million)	48.1	140.0	191
Others	2.7	5.3	96
Total (Except eggs)	88.2	115.7	29

c) Increasing the value of exports of agricultural commodities from JD 4 million in 1971 to JD 8.5 million in 1975, and decreasing the value of imports of agricultural commodities.

d) Improving the efficiency of marketing agricultural products through establishment of marketing institutions and procurement of marketing services.

e) Increasing the productivity of the unit area of the utilized agricultural land.

f) Reclaiming land and increasing the area under cultivation through land levelling practices and planting more forest and fruit trees.

g) Increasing the number of livestock varieties of high meat and milk productivity through introducing new strains and improving local varieties.

Organizational and Policy measures

a) Formation of an Agricultural Development Council, chaired by the Minister of Agriculture and having the following members :Minister of National Economy, President of the

National Planning Council, Director General of the Agricultural Credit Corporation, Director of Jordan River and Tributaries Regional Corporation, Vice President of the Natural Resources Authority, Director General of the Jordan Agricultural Marketing Organization, Dean of the Faculty of Agriculture at the University of Jordan, Director General of the Jordan Cooperative Organization and three members representing the private sector. The function of the Council will be as follows :

1. To determine agricultural polices and objectives within the framework of the national plan for socio - economic development.
2. To formulate integrated plans for agricultural development to control and follow up the implementation of agricultural development projects and to overcome difficulties that may face such activities.
3. To direct the potentials and activities of the private sector within the limits of agricultural policies and the general objectives of the national development.
4. To take measures and decisions to develop, protect and maintain agricultural production.
5. To coordinate activities and requirements of the different departments, corporations and organizations involved in the agricultural sector.
6. To supervise the agricultural development councils on the Governorate level, and through these councils, to oversee the agricultural development committees in the villages.

b) Formation of an agricultural development council in each governorate chaired by the Governor and composed of the directors of Agriculture and the ACC and the JCO and a number of representatives from the private sector in the governorate. The function of these councils is the implementation of agricultural development projects in each governorate, establishment and support of cooperative societies and encouragement of the private sector by all possible means to invest more in agriculture in order to increase agricultural productivity.

c) Formation of committees on the village level composed of farmers and the extension and cooperative agents in the village. The function of these committees is to participate effectively in agricultural development on both the farmer and village level.

d) Enactment of laws to organize the relationship between landlords and tenants or sharecroppers, and to secure adequate incentives for tenants to invest more in agriculture.

e) Expansion and strengthening of the agricultural cooperative movement to include the maximum possible number of farmers. This can be achieved by supporting the existing societies, forming new specialized and regional cooperatives and unions, and assisting these societies financially and technically, to enable them to organize agricultural production, implement agricultural policies and procure supplies for the production and marketing of agricultural products.

f) Organization and promotion of marketing of agricultural products in local and foreign markets, through the following procedures :

1. Application of a suitable cropping pattern for the utilization of agricultural lands. This pattern will cover the distribution of field crops on the respective areas according to their environmental conditions and according to the requirements of the local and foreign markets.

2. Encouragement and training of farmers to grade their products in their farms and in grading and packing stations.

3. Formulation of standards for all kinds of agricultural commodities and packages for local consumption or export, and prohibition of exporting of commodities which do not meet the standards, in order to gain and maintain a good reputation in foreign markets. Also, prohibition of marketing of products which do not meet the standards required for local markets in order to reduce the marketing margin, for the benefit of the farmers.

4. Organization of agricultural exhibitions and competitions and the promulgation of material and other incentives to farmers who produce good products or obtain yields higher than a certain level.

5. Organization of the marketing of products in foreign markets through contracts between the Jordan Agricultural Marketing Organization and the producers, with the purpose of producing desirable varieties at a maintained minimum farm price.

g) Development and support of agricultural research and extension stations by technical and material means and establishment of more stations to cover various agricultural areas and can carry out applied research in the different agricultural fields.

h) Improvement and expansion of the extention services to cover all agricultural areas through : the improvement of the technical standard of the extension agents and increasing their number and the dependence on extension agents to convey the government agricultural policies to farmers and to convey problems and difficulties that face farmers to the concerned departments for solutions.

5. Projects

a) Agricultural - Economic Research and Studies

Planning for agricultural development requires the collection of comprehensive data and statistics on various agricultural activities, and the soundness of planning depends on the availability of this information.

This project aims at conducting studies on the following subjects, with the purpose of supporting future planning for the agricultural sector :

(i) Farm administration, including the utilization of agricultural resources, production costs and agricultural revenues.

(ii) The agricultural holding situation, such as the distribution and fragmentation of holdings, land tenure conditions and their effect on investment and income distribution.

(iii) Agricultural marketing, including demand for agricultural commodities in different markets and marketing efficiency.

(iv) Animal busbandry from the economic point of view, including introduction of new strains, feeding, productivity of different varieties, cost and returns.

(v) Feasibility study of processing agricultural products.

(vi) Agricultural credit, including financial resources, size and terms of loans.

(vii) Analysis of the ongoing and purposed agricultural projects to be executed during the Plan period, and follow up and evaluation of the implementation of these projects.

An agreement has been concluded with the United States Agency for International Development (USAID) to recruit an expert to assist the Agricultural Economics Directorate in conducting studies and collecting information related to planning on national, regional and farm levels.

Estimated costs of this project are JD 25,000 to be financed from the general budget and foreign assistance and distributed as follows :

(in JD 000's)

1973	1964	1975	Total
5	10	10	25

b) Regional Development of Dryland Farming

The aim of this project is to solve natural, human and organizational problems and restrictions facing farmers in dryland areas. The project deals specifically with problems of agricultural development as integrated efforts between public and private sectors which will be organized into suitable cooperatives. Farmers in dryland areas suffer from these problems, which cannot be tackled on an individual basis, because of their integrated and multi-faceted nature.

The achievement of the above-mentioned objectives requires the following :

1. A detailed survey of the presently practised cropping pattern.
2. Soil survey and classification.
3. Study of the problems related to agricultural land holdings, which should include determination of the minimum economic size of holdings, land consolidation and

redistribution. In these studies, consideration should be given to topography and productive factors, voluntary exchange among land holders, consolidation and redistribution of land among the same holders (in a way similar to the one followed in the East Ghor Canal Project), and group incorporation where the cost of production as well as profits are shared among partners, in the same ratio.

4. Establishment and application of a new cropping pattern, considering the natural factors of production such as climate, soil and rainfall.

As the development of all dry land areas in the East Bank during the Plan period is impossible due to limited available facilities, the execution of this project is limited to an area of 170,000 dunums located in Karak Governorate in cooperation with the United Nations Development Programme and World Food Programme as a pilot project named "Al Hussein Green Project". In addition to the above mentioned tasks the pilot project will plan and execute other activities related to water and soil conservation within an area of 70,000 dunums.

The pilot project costs over the Plan period are estimated at JD 741,000 distributed as follows :

(in JD 000's)

	1973	1974	1075	Total
UNDP Contribution	83	72	72	227
Government Budget	38	38	38	114
WFP Contribution	100	150	150	400
Total	221	260	260	741

This pilot project was started in 1969 in the Baqa'a area, but was transferred to the Karak area in 1971 as a result of the events that took place in the country.

Although the project is scheduled to terminate at the end of 1974 according to the present agreement with UNDP, further extension will be requested because of its importance.

In addition to the pilot project, the dryland development project includes the following actions :

1. Aerial survey of about 12,000 Km of land where annual rainfall is more than 250 mm. Air-photographs will be prepared in a scale of 1 : 10,000.

2. Soil survey and classification using air-photographs, and preparation of soil maps for 12,000 Km in a scale of 1 : 10,000.

3. Detailed soil survey and classification of an area of 30,000 dunums.

4. Detailed survey of the present cropping pattern in the dryland areas by using aerial-photographs. Also, preparation of a new cropping pattern for various areas based on their relative advantages and characteristics.

Estimated costs of the above works during the Plan period are JD 260,000 to be financed from the general budget and foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Costs of aerial surveys	200	30	30	260

c) Wheat

Wheat is one of the main agricultural crops in Jordan as it is the staple food of the population and occupies the largest area of cultivated land. The average annual wheat-cultivated area for the period 1967-1971 was 2.1 million dunums, or more than one-third of the cultivated land in the East Bank of Jordan. Average annual production of wheat for the same period was 134,000 tons, while average consumption was 246,000 tons, which shows deficit of 111,000 tons valued at JD 3.3 million or one-fifth of agricultural imports.

This deficit, which is increasing every year, is attributed to many factors, which include : increase in population, decrease in yield per dunum (average of only 63 Kgs), fluctuation of annual production according to fluctuation and seasonal distribution of rainfall, practicing traditional methods in wheat production and continuous expansion in wheat growing, in the marginal and sloping areas that are characterized by a thin layer of surface soil.

The proper organization of wheat production requires the replacement of wheat with barley in marginal areas, planting the sloping areas with forest and fruit trees, and restriction of wheat growing to areas of more than 300 mm. rainfall and average yield of 85 Kgs or more per dunum. In addition, productivity in these areas can be increased by using improved seeds, chemicals, weed killers, fertilizers, mechanization and modern methods of agriculture.

Experiments conducted by the Ministry of Agriculture in the research stations and demonstrations conducted in the farms have shown that it is possible to double the production of wheat per dunum.

The objective of this project is to increase total wheat production from 134,000 tons to 160,000 tons by the end of the Plan period, which means increasing production by 26,000 tons or 19% of the present output, through the following measures :

1. Increase in improved wheat seed, through contracts between the Ministry of Agriculture and individual

producers or cooperatives, whereby the Ministry of Agriculture would buy the seed at encouraging prices and distribute it gradually to the farmers.

2. Conducting field demonstrations and training farmers in the use of improved seeds, weed killers, chemicals and machines in wheat production.

3. Expansion of the use of modern machines by importing them through the public sector and selling them to farmers at reduced prices.

Project costs during the Plan period are estimated at JD 245,000 financed from the general budget and USAID and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
General Budget	50	47	43	140
USAID	35	35	35	105
Total	85	82	78	245

d) Hybrid Maize in the Ghor Areas

As a result of adopting a suitable corpping pattern in the Ghor areas, there is a possibility of growing 13,000 dunums of hybrid maize in order to reduce present maize imports, which amount to 12,000 tons annually and are consumed as feed for livestock. Growing maize in the Ghor areas will be a new large industry which needs hybrid seeds, fertilizers and planting and harvesting machines. The project aims at helping farmers to prduce around 5,000 tons of maize.

Estimated costs of the project are JD 50,000, to be financed from the general budget and foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	18	—	—	18
General Budget	10	11	11	32
Total	28	11	11	50

e) Fruit Trees in the Drylands

The total area planted with fruit trees at the end of 1971 was 365,000 dunums. Olives occupy 277,000 dunums or about three-quarters of the fruit-trees area, followed by grapes (39,000 dunums), citrus (16,000 dunums) and banana (10,000 dunums).

Average income from the fruit industry for the period 1967-1971 was JD 3.4 million. Nevertheless, Jordan is still facing a deficit of JD 500,000 in the fruit trade balance.

This project aims at expansion in planting olives, grapes and stone fruits in areas of suitable climatic conditions and soils that are subject to erosion. These areas are estimated at 623,000 dunums and planting costs are estimated at JD 24 per dunum.

The project plan includes the following :

1. Planting fruit trees according to the following schedule :

Variety	Area (000 dunums)
Olives	140
Stonefruit and others	30
Grapes	15
Total	185

2. Preparation of required seedlings at existing nurseries in addition to two nurseries to be established for the same purpose in the Karak and Ma'an Governorates.

Implementation of this project includes the selection of suitable catchments in different regions, terracing, planting and other technical works.

These works will be implemented in group action in order to reduce costs and train farmers in team work. The Jordan Government will provide half of the cost and the private sector will provide the other half.

According to the agreement with WFP, which terminates in 1974, the third phase of this project started in January 1969. Contracts will be made for further extension of the agreement for five more years.

Total costs of this project during the Plan period are estimated at JD 4.36 million to be financed by the general budget, foreign assistance, WFP and the private sector and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
WFP	480	480	480	1440
General Budget and Foreign Assistance	270	270	260	800
Private Sector	700	700	720	2120
Total	1,450	1,450	1,460	4360

f) Soil Conservation and Afforestation

The partially or completely afforested areas in the East Bank of Jordan amount to about (400,000) dunums. In addition, there are 1.2 million dunums of land that needs afforestation. These lands are subject to erosion that affects irrigation installations besides making that land unsuitable for economic agricultural utilization.

Soil conservation in these lands includes building stone wall terraces, gullies and small dams and the planting of 200,000 dunums of land with forest trees.

Because of the direct and indirect benefits of these projects, it is proposed that all citizens should participate in them, especially students and youth camp participants.

These projects include :

1. Soil Conservation in Wadi Zerqa

The Ministry of Agriculture has already prepared the plans for soil conservation in the highlands overlooking the Ghor area priorities to watershed areas and water dams sites. This project aims at soil conservation and afforestation in Jerash and Burma village in the northern section and Alouk and Rumman areas in the southern slopes. Areas included are about 100,000 dunums and the proposed work will include soil erosion control measures to check and minimize soil movement from slopes, the planting of carob and almond trees in suitable sites, and the improvement of naturally-growing wild olives.

Costs during the Plan period are estimated at JD 740,000 to be financed from foreign assistance and the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
240	227	273	740

2. Soil Conservation in Wadi Shueib and Wadi Kufrein

This project aims at controlling soil and water erosion at wadi Shueib and Wadi Kufrein watersheds. The area is about 340 Km.. This will be accomplished through terracing by the building of stone walls, the construction of gully plugs and dams, and the lining of contours. Project plans were proposed in co-operation with FAO experts with the aim of implementing them during five years, at a cost estimated at JD 500,000. The project was started in 1970 during which JD 100,000 were expended.

It is proposed that JD 300,000 be contributed from the budget and foreign assistance and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
100	100	100	300

3. Annual Afforestation Project

This project aims at planting 25,000 dunums a year, or 75,000 dunums in three years. The work will be achieved through the Forest Department staff in addition to the previous projects.

Total costs are estimated at JD 370,000 to be financed from the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
130	120	120	370

4. Improvement of Forest Nurseries

The implementation of the previous three projects requires 24 million seedlings in three years. Therefore, the nurseries have to be improved and expanded for raising the required stock. Costs are estimated at JD 115,000 to be financed from the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
30	40	45	115

Total costs are estimated at JD 1.525 million, to be financed from foreign sources and the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
500	487	538	1,525

g) Ghor Lands Improvement

There are lands in the East Ghor Canal area that still need to be levelled, in order to improve their productivity by using irrigation and new methods of agriculture. This project aims at the following :

1. Conducting surveys and studies to delineate the areas that need to be levelled.
2. Procurement of heavy-duty levelling machines.
3. Organization of land levelling and improvement as follows :
    - a) Land levelling
    - b) Digging earth canals and construction of lined canals that suit each farm.
    - c) Enforcement of suitable regulations relating to irrigation, such as a straight furrow irrigating system.

Total costs of this project are estimated at JD 562,000, half of which will be provided by the private sector. They will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	95	95	91	281
Private Sector	95	95	91	281
Total	190	190	182	562

h) Growing and Grading Tobacco

The total average area planted with tobacco during the period 1967-1970 in the East Bank was 36,000 dunums, and average production for the same period was 1,400 tons valued at JD 449,000. Total net annual income from tobacco leaves is around JD 987,000.

This project aims at Government involvement in developing the tobacco industry through improvement of methods of production and use of new curing and manufacturing techniques. This will help improve the quality of local production and raising the quantity that goes into the Jordan cigarette industry.

An agreement with FAO was concluded on April 1, 1970 for a three year period aimed at developing the tobacco industry in Jordan. The contribution of UNDP to this project is around JD 154,000 and the Government contribution is JD 129,000. This project was started in July 1970 but was stopped early in 1971. The project period needs to be extended until the middle of 1974.

Contacts have been made with the Government of West Germany to establish an experimental centre for tobacco classification, grading, and curing.

Estimated costs of the project are JD 244,000, including JD 120,000 for the establishment of the centre. They will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	35	16	—	51
UNDP	48	25	—	73
Government of West Germany	—	120	—	120
Total	83	161	—	244

i) Animal Resources

Livestock projects aim at increasing animal products such as meat and dairy, wool, leather and others whose demand is increasing. There exists a large deficit in the production of these commodities amounting to about JD 7 million annually. The increases in production will be realized through the improvement and increase of existing stock and the introduction and acclimatization of high yielding foreign breeds. There exist possibilities to increase fodder production by about 105.000 tons as a result of crop pattern application in the Ghor areas and areas irrigated from springs and groundwater.

Furthermore, it is possible to produce 45,000 tons of fodder from the Ghor areas, 30,000 tons from irrigated highlands and the production of 30,000 tons of barely from dry farming areas. This is in addition to the development of range land and the fodder collected from the remnants of some agricultural industries as the breweries and flour mills.

Animal production projects include the following :

1. Production of Acclimatized Dairy Cows

The project aims principally at the production of dairy cows of foreign purebreeds under Jordanian conditions to satisfy farmer demand for acclimatized dairy cattle. This aim can be fulfilled by the establishment of a stud farm at the Sultani irrigation scheme where feed and fodder requirements can be grown successfully. This project should be a profitable commercial enterprise.

The capital cost of the project is estimated at JD 685,000 to be met from the government budget and foreign assistance. The cost of the project is distributed as follows :

(in JD 000's)

1973	1974	1975	Total
432	202	51	685

2. Animal Production

This project aims at laying down the foundations of developing livestock production in Jordan by means of research, training of local staff and farmers in animal production aspects, including range management, fodder production in rainfed and irrigation areas, improving feed and fodder processing, increasing the productivity of farm animals through upgrading of local sheep and the introduction of foreign dairy cattle and layers, improving animal husbandry and control of disease and the improvement of marketing and packing techniques of livestock products.

The total cost of the project is JD 772,000 spread over a five-year period (1973-1977). However, the cost of the project over the Plan period is JD 426,000 of which the Jordan Government's contribution in kind will be JD 126,000 and the rest will be contributed by the UNDP. The cash contributions of the Government and UNDP are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government contribution	8	14	11	33
UNDP contribution	92	102	73	267
Total	100	116	84	300

3. Poultry

a) Egg Production Project

Available statistics show that egg consumption is increasing and local egg production does not meet the increasing demand. Total import of eggs in 1971 was around 101 million eggs.

This project aims at satisfying the local market demands by establishing a company for egg production, to be financed from the government budget, the private sector and a foreign company. Estimated costs of this projec are JD 1.205 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Private sector and foreign company	500	455	—	955
Government budget	—	250	—	250
Total	500	705	—	1,205

b) Project for Improving the Breeding of Laying Hens

1. Development of Wala station to be a layer stock breeding station, where eggs and chicken for breeding can be produced and distributed to farmers to meet the increasing demand for these products.

2. Establishment of two farms for laying hens, one in Dhuleil area and the other in the South with the following objectives:

   (i) As model farms for laying hens.

   (ii) To train agricultural agents and farmers in poultry industry works.

   (iii) To run experiments on feed production and cheap concentrates.

Costs of this project are estimated at JD 68,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	23	23	22	68

4. Increasing Meat Production from Local Sheep

The objective of this project is to train sheep growers in fattening their sheep in cooperative centres, in order to increase their income by feeding the sheep to an economical slaughter weight.

To achieve this objective, three pilot fattening centres will be established in Amman, Irbid and Ma'an governorates, each of 10,000 lamb fattening capacity.

The number of these centres will be increased in order to handle all slaughtered animals. The increase will be effected through a number of cooperative organizations supported by the Government. Through its gradual participation in capital and managing boards, the private sector will eventually take over the whole operation.

In the meantime, farmers will bring their sheep to be fattened in the centres and will be charged for this service.

The investment cost of these three centres is estimated at JD 60,000 to be financed from the government budget. The working capital is estimated at JD 175,000. The total cost is distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	60	—	—	60
Foreign Assistance	60	60	55	175
Total	120	60	55	235

5. Development and Improvement of Veterinary Services and Animal Health

In 1968, an agreement was signed between the Government of Jordan and the UNDP, by which an animal health centre was established to train Jordanian veterinary staff on the diagnosis of animal diseases, methods of controlling disease outbreaks, preparation of vaccines and training stock owners in ways of protection against reproduction diseases. This project terminates in June 1973, but the UNDP will be approached for extending the project for five years more in order to complete the research work that has been initiated on vaccine preparation.

The total cost of the project over the Plan period is estimated at JD 346,000, of which JD 270,000 is financed from UNDP and JD 76,000 from the government budget and foreign assistance. The costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
UNDP Contribution	110	89	71	270
Government Budget and Foreign Assistance	50	26	—	76
Total	160	115	71	346

SUMMARY OF ANIMAL RESOURCES PROJECTS

(in JD 000's)

	1973	1974	1975	Total
1. Production of acclimatized dairy cows	432	202	51	685
2. Animal production	100	116	84	300
3. Egg projects				
a) Egg production	500	705	—	1205
b) Farmers Laying Hens improvement	23	23	22	68
4, Increasing meat from local sheep	120	60	55	235
5. Improvement of veterinary and animal health services	160	115	71	346
Total	1335	1221	283	2839

J) Research and Extension Projects

Research and extension projects aim at increasing productivity per unit of land, decreasing costs or production and improving the quality of products to meet marketing and processing requirements through studying the problems of agricultural production in different areas. This includes the following :

1. Research on varieties of high-yield disease resistant products suitable for transportation and desirable for marketing and/or manufacturing.
2. Research on dates of planting and agricultural rotation in order to make the best use of land and meet local and foreign market demands.
3. Research on agricultural practices such as seedling production, method and intensity of planting, soil covering, and growing on trellis.
4. Studies on insect life cycles to find out suitable programmes for pest control.
5. Experiments on chemical and biological pest control.
6. Experiments on soil fertility and water requirements.
7. Studies on avoiding or limiting soil salinity.
8. Experiments on growing under controlled conditions to produce vegetables in off-seasons.
9. Study of mechanization in agriculture production under different growing conditions.
10. Production of stock and improved seeds.
11. Dissemination of research findings to farmers by use of different extension methods.

Research and extension programmes include the following projects :

1 Development and Establishment of Research Stations in Different Agricultural Regions

This includes development of the Deir Alla research station and establishment of three stations in Wadi Yabis, Middle Ghor and South Ghor, in addition to two stations to be established in drylands in Amman and Irbid. No stations are now available in these areas except for the Irbid station, which is going to be sold because it is located within the Irbid Municipality boundaries. Costs of developing and establishing the above-mentioned stations are JD 1.1 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Stations in the Ghor Areas				
Development of Deir Alla Station	150	30	40	220
Development of Wadi Yabis	150	54	53	257
Establishment of Middle Ghor Station	30	56	54	140
Establishment of South Ghor Station	30	55	56	141
Establishment of Amman and Irbid Stations	290	25	27	342
Total	650	220	230	1,100

2. Establishment of Laboratories for Plant Protection, Toxicity and Seeds

These are needed to support research and studies in irrigated areas, carried out by the research stations in different regions. Costs of establishing these laboratories are JD 118,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Plant Protection Laboratory	14	7	6	27
Texicity Laboratory	10	4	5	19
Seeds Laboratory	37	22	13	72
Total	61	33	24	118

3. Conducting Agricultural Research and Experiments

This deals with field and industrial crops, vegetables and fruit trees with the following objectives :

a) Research on Field and Industrial Crops

This includes conducting research, experiments and demonstrations on agricultural practices such as irrigation, use of fertilizers, plant protection and the choice of crops to suit the different areas. These studies will be made on irrigated and dryland areas. Costs of these studies are JD 150,000 to be financed from the government budget and foreign assistance, and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
50	50	50	150

b) Vegetables Research

These studies and research aim at introducing high yeilding varieties of vegetables as well as new products for export, conducting breeding experiments to introduce disease resistant varieties, and studying dates of planting, irrigation, fertilization and mechanization. Costs of these studies are estimated at JD 150,000 to be financed from the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
50	50	50	150

c) Fruit Trees Research

This research aims at introducing suitable new varieties and agricultural practices such as irrigation, fertilization and plant protection of these new varieties. Costs are estimated at JD 20,000 to be financed from the government budget and distributed as follows :

(in JD 000's)

1973	1974	1975	Total
5	5	10	20

Agricultural Extension

a) Project of Agricultural Rehabilitation and Training Centre.

Manpower is the main element in agricultural development. Farmers' social and cultural levels, in addition to organizational and technical facilities, largely affect the adoption of new scientific methods and the rate of growth of the agricultural sector.

The agricultural extension programme aims at improving farmers' agricultural attitudes, knowledge and skills through continuous training. Accordingly, this project aims at improving the efficiency of extension agents in introducing desirable changes such as new research findings and delineated cropping patterns.

The project includes the establishment of a centre for training research workers, extension agents and farmers at the different research stations. The cost of the project. during the Plan period, is estimated at JD 222,000 to be financed by the Government and UNDP. The Government participation is 15% of this cost. The project also includes conducting demonstrations in different fields of agriculture. The cost of these demonstrations is estimated at JD 57,000 to be financed from the government budget. Costs of the project are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
(i) Training Centre				
1. UNDP	63	63	63	189
2. Government Budget	11	11	11	33
(ii) Demonstrations	19	19	19	57
Total	93	93	93	279

b) Project for Training Farmers on Irrigated Cultivation

This project specifically aims at training bedouin youth on practicing irrigated farming before giving them titles to farm units in the irrigated projects which are carried out in Kerak and Ma'an. Training will be conducted as follows :

1. A committee representing different ministries and government institutions will select nominees from the population of the areas of the projects to be given farming units.

2. Employment of the persons selected by the committee as daily labourers for the Ministry of Agriculture, with the purpose of training them for two years in the farming units which will be distributed among them in the future.

3. Renting out the farming units to the nominated trainees to do farming independently for three years. During these three years they will be supplied with water for irrigation at prices not exceeding costs of maintaining and operating the artesian wells and irrigation canals.

4. At the end of this period, the farmers who show interest and efficiency in farming their units will be given titles to them. At the same time, they start re-paying the costs of construction and operation and maintenance of wells on a water consumption basis. Costs of the project during the Plan period are estimated at JD 336,000 to be financed from the recurring expenditures of the budget.

SUMMARY OF RESEARCH AND EXTENSION PROJECTS

(in JD 000's)

	1973	1974	1975	Total
Research Stations	650	220	230	1,100
Agricultural Laboratories	61	33	24	118
Research on Industrial and Field Crops	50	50	50	150
Vegetables Research	50	50	50	150
Fruit Trees Research	5	5	10	20
Re-habilitation and Training Centre	93	93	93	279
Total	909	451	457	1,817

k) Agricultural Marketing

1. Establishment of four new centres for assembling, packing and storing agricultural products. Three of these centres will be located in the Jordan Valley at Ma'adi, North Shouneh and South Shouneh, while the fourth centre will be located at Al Mazra'a in South Ghor. The Agricultural Marketing Organization (AMO) will be responsible for the establishment and management of these wholesale marketing centres.

   Costs of this project are estimated at JD 182,000 to be financed from foreign assistance and the budget of AMO and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
AMO and Foreign aids	120	62	—	182

2. Processing of Agricultural Products. Processing agricultural products is considered one of the main channels of agricultural marketing and a starting point towards the integration of agricultural and industrial activities of the national economy. It is also an important means of increasing exports or producing import substitute commodities, in addition to stabilizing agricultural production.

This project includes the following :

a) Establishment of a tomato paste plant and the processing of other vegetables and fruits. An agreement has been signed with the UNDP for the purpose of developing agricultural marketing. FAO, being the executive agency of UNDP, studied the feasibility of establishing a plant that can be used for the processing of tomato paste and other vegetables and fruits and, accordingly, action was taken to establish the plant. The plant capacity is 4,000 tons of tomato paste and 600 tons of other vegetables and fruits. The plant is expected to start production in 1973. Cost of this project is estimated at JD 160,000, of which JD 40,000 will be incurred by UNDP and the rest by AMO, and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
AMO	120	—	—	120
UNDP	40	—	—	40
Total	160	—	—	160

b) Updating and conducting studies for the processing of agricultural products and for the production of agro-industrial crops for the production of sugar, edible oils and others. The studies which prove to be economically and technically feasible will be further implemented.

Costs of these studies are estimated at JD 10,000 to be financed from foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	10	—	—	10

SUMMARY OF AGRICULTURAL MARKETING PROJECTS

(in JD 000's)

	1973	1974	1975	Total
Establishment of collection and packing centres	120	62	—	182
Tomato processing plant	160	—	—	160
Studies of agricultural processing	10	—	—	10
Total	290	62		352

SUMMARY OF AGRICULTURAL PROJECTS

(in JD 000's)

	1973	1974	1975	Total
Agricultural Economic Studies	5	10	10	25
Regional Dryland Farming Development	421	290	290	1,001
Wheat Project	85	82	78	245
Maize Project	28	11	11	50
Fruit Trees in Drylands	1,450	1,450	1,460	4,360
Afforestation and Soil Conservation	500	487	538	1,525
Ghor Land Improvement	190	190	182	562
Tobacco Growing and Grading	83	161	—	244
Livestock Projects	1,335	1,221	283	2,839
Research and Extension Projects	909	451	457	1,817
Agricultural Marketing Projects	290	62	—	352
Total	5,296	4,415	3,309	13,020

4. IRRIGATION

Jordan depends largely on rainfall for its water resources. Most of the agricultural, domestic and industrial needs are met from annual precipitation which is scarce in volume and extremely variable from year to year. Agricultural production is directly affected by this characteristic resulting in adoption of drought resistant crops. Schemes for the development of surface and ground water resources have therefore, received great emphasis in the past, serving the increasing needs of agriculture, both for increasing intensities and for diversifying the range of crops. Some of the most important water resources development projects were oriented to these requirements, whereby irrigated areas could be extended and domestic and industrial uses adequately satisfied.

The Jordan Valley is one of the most important areas of the Kingdom from the point of view of being endowed with natural qualities (land resources, water resouces and temperate climate) which are highly conductive to expansion and diversification of agriculture without being subjected to serious droughts. The net irrigable land amounts to 481,000 dunums, of which 325,000 dunums are on the East Bank of the Jordan River, while all its tributaries within the Kingdom have an average annual run-off of 660 million cubic meters of water. Projects for the development of these natural resources, inherent in the Jordan Valley, have received due priority in agricultural planning and in construction of water development projects.

Another important segment of the land and water resources are the Ghors lying south of the Dead Sea, namely, Ghor Haditha, Ghor Mazra, Ghor 'Isal, Ghor Numeira, Ghor Safi and Ghor Feifa, extending to approximately 60,000 dunums. These can be fully developed by 89.5 million cubic meters of water, which flow down the adjoining side wadis and springs and most of which at present go to waste into the Dead Sea.

There are certain other areas, on the Eastern plateaus of Jordan, where ground-water exploration was carried out. This prospecting led to the discovery and development of underground water resources suitable for irrigation. Such areas are estimated to be 92,500 dunums and are scattered around the plateau.

The development of the water resources of the Jordan Valley basin has been substantiated over and over again, through numerous technical and economic feasibility studies. One of the latest studies of this nature, which was very detailed and comprehensive, was carried out by Messrs. Nedeco and Dar-al-Handasah, of the Hague and Beirut respectively. These various studies, as well as the deliberation of the Government of Jordan, have resulted in the evolution of a master-plan which is aimed at the complete and intensive agricultural development of the Jordan Valley. Incorporated in this project are the construction of a series of storage dams on the Rivers Yarmouk and Zerka and other side wadis, main irrigation canals including distribution and drainage systems and reclamation and flood protection of land.

The initial stages of the Jordan Valley development project were commenced in 1958 and, by the end of 1971, the following elements of the project had been implemented :

a. Partial diversion of the waters of the Yarmouk River, delivered to the areas through a tunnel 1 Km long and an irrigation canal 70 Km in length. The total area, 111,000 dunums in extent, or 3,500 agricultural farm units, is serviced by 600 Km of laterals. This part of the project was completed in 1963.

b. Raising the sides of the East Ghor main canal, for increasing its capacity from 10 to 20 m^3/ second. This project was completed in 1967.

c. Shurahbeel Ibn Hasna Dam was constructed on Wadi Ziglab with a storage capacity of approximately 4.3 million cubic meters. The gross yield from the dam, which is transferred to the East Ghor Canal is approximately 10.8 million cubic meters of water per year. The dam was completed in the year 1967.

d. Construction of Shu'aib and Kafrain dams was completed in 1968. The storage capacity of these two dams is 2.3 and 4.3 million cubic meters, while their gross yield runs to 9.7 and 9.4 million cubic meters per year respectively. The two dams can irrigate an area of approximately 13,000 dunums.

e. Khalid Ibn El-Walid Dam was designed with a storage capacity of approximately 200 MCM and with enough delivery to irrigate 200,000 additional dunums of land in the Jordan Valley. Implementation of the project was initiated in early 1967 but came to a standstill as a consequence of the 1967 War.

f. Extension of the existing East Ghor Canal, by eight kilometers was completed in 1970. This will help to irrigate an additional area of 13,178 dunums.

The British Consulting Engineering firm, Sir M. MacDonald and Partners, was entrusted with the preparation of a technical and economic study for the areas in the Southern Ghors and to make recommendations for their development. Their report was submitted in 1969, but no implementation of the project could take place as a result of the difficult situation prevailing in the area. Their report is now being updated in the light of additional information which has since become available.

Several surveys have been carried out in the country in order to locate and delimit ground-water aquifers. Based on the results of these surveys, numerous wells were drilled both by private and public enterprises to exploit artesian underground water. The total number of wells drilled by both these agencies has reached 737 on the East Bank. The following irrigation schemes were completed by the Government on the plateaus of the East Bank :

Location	No. of Wells	Total Yield m³/Hour	Irrigated Area (dunums)
Jafer	14	2,222	3,000
Dhuleil	7	2,142	6,000
North Qatrana	3	360	1,000
South Qatrana	3	360	700
Tell Burma	2	360	1,000
Wadi Abiad	1	170	500
Ghuweir	1	170	500

Additional development is also planned by the Government in the form of dams on the side wadis in the Ghor areas.

As previously mentioned, Shueib, Kafrein and Shurahbeel Ibn Hasna dams have been constructed in the Jordan Valley. In addition, the following dams have also been constructed in other parts of the country :

Name	Location	Storage Capacity MCM	Period of Construction
Sama Sdoud	North-west Mafraq	4.50	1965-66
Qatrana	Qatrana	4.50	1962-63
Sultani	Sultani	1.25	1961-62
Wadi Abiad	North Mafraq	0.75	1966-67

Some of these dams are used for irrigating areas of a limited extent in the vicinity of the respective dams.

2. Characteristics and Problems

a. Scarcity of reservoirs to store rain and flood waters, which at present go to waste into the sea.

b. The need for skill technicians capable of undertaking technical studies and designs of storage works, and construction of these structures.

c. The need for a continuous search programme for additional water resources which can be exploited for irrigational needs throughout the Kingdom.

d. The need for modern methods and techniques in irrigation which would best serve the specific nature and requirements of each area.

e. Scarcity of domestic funds for financing the implementation of various irrigation projects.

3. Goals

During the Plan period the following goals are envisaged :

a. Increase and utilization of all available water resources and their economic exploitation wherever possible.

b. Increase of irrigated areas by 110,000 dunums, through the execution of various irrigation schemes by the Government as outlined in the Plan, as well as other projects developed by the private sector.

c. Continuation of investigations for locating ground-water aquifers and their economic utilization.

4. Organizational and Policy Measures

a. Continuation of necessary studies of water resources in the Kingdom and adoption of a consistent and long-term water policy that covers all sources and uses of water.

b. Making available full-time organization for supervising the execution of the Jordan Valley development and rehabilitation scheme.

5. Projects

a. Irrigation Projects Covered by the Plan for the Re-habilitation and Development of the Jordan Valley

In view of the special importance of the Jordan Valley and in order to make optimum use of its resources, the Government, at the begining of 1972, formed a technical committee comprising representatives from various related ministries and departments to formulate a comprehensive three-year plan for the rehabilitation and development of the area. The plan indicated the measures to be taken for rehabilitating social, agricultural and other economic utilities and for resuming the remarkable developmental economic activity which flourished in the Jordan Valley area before the 1967 War. It includes projects for exploiting water resources by constructing irrigation structures and developing other agricultural and social aspects. The costs of implementing the projects proposed by the Plan are estimated at JD 25 million, of which JD 14.1 million for the construction of irrigation structures, JD 5.5 million for agricultural development and JD 5.4 million for social development.

Economic feasibility studies have shown that the implementation of these projects will increase the irrigated land area in the Valley from 147,000 dunums in 1971 to around 200,000 in 1975, and will increase the gross value of agricultural output, over the same period, from JD 4.2 million to JD 7.8 million, measured in terms of 1971 prices. In addition to this impact on economic performance and its participation in raising foreign exchange receipts, the plan will lead to the development of the Jordan Valley area and attract an increasing number of people to it, through the creation of permanent jobs, provision of public services and appropriate housing utilities on a self-help basis.

This chapter deals only with irrigation and water resources; the agricultural side of the plan for developing the Jordan Valley area has been dealt with in the sector on Agriculture. Social development has been described in the Municipal and Rural Affairs, Housing and Government Buildings, and Transportation sectors. As far as irrigation and water resources are concerned, the Plan of developing the Jordan Valley calls for the following :

1. Rehabilitating and Developing the East Ghor Canal Area

This project aims at rehabilitating and cleaning the main canal, laterals and distribution networks; constructing underground concrete-pipe drainage networks covering 12,000 dunums and open-surface ditches for draining extra water out of the soil; and constructing flood protection works.

Costs over the Plan period are estimated at JD 1.093 million to be financed from the government budget and foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	324	435	334	1,093

2. Zerka River Project

The target of this project is irrigating 48,000 dunums. It comprises the following parts :

a. Constructing a rockfill dam on Zerka River, 92 meters high, with a maximum width of 400 meters and an active storage capacity of 37 million cubic meters. The construction of the dam was initiated in early 1972 and completion is expected by the end of 1974.

b. Construction of the diversion structures, carrier canals and other works necessary for diverting the stored water of the Zerka dam, from the point where it emerges from the Zerka gorge near Deir Alla, and delivering it into the existing East Ghor Canal.

c. Extending the East Ghor Canal by 18 Km to the south with a capacity of 12 - 9 m^3 /second.

d. Grading and levelling land to be irrigated by the Canal, constructing a drainage system in it, appropriating and dividing it into small units of not less than 30 dunums each and maximum ownership not exceeding 200 dunums.

An agreement was concluded in early 1972 with the Kuwait Fund for Arab Economic Development, under which the Fund will provide a loan of JD 5.1 million to be used for financing some of the costs of this project, estimated at JD 11.24 million of which JD 8.262 million will be spent over the Plan period and distributed as shown below (on the assumption that JD 2.978 million will be spent in 1972) :

(in JD 000's)

	1973	1974	1975	Total
Kuwaiti Fund Loan	2,013	1,396	—	3,409
Government Budget and/ or Foreign Assistance	3,276	1,577	—	4,853
Total	5,289	2,973	—	8,262

3. Irrigating Areas Above the Canal of Shurahbeel Ibn Hasna (Zighlab Dam)

This project aims at constructing an irrigation network in the land falling between the East Ghor Canal and Zighlab Dam for irrigating 3,340 dunums. Total costs are estimated at JD 207,000 to be financed from foreign assistance. Costs over the Plan period are set at JD 180,000, to be distributed as follows .

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	64	75	41	180

4. Developing Shu'aib-Kafrein-Husban Area

This project includes the construction of a main canal and an irrigation network in the area above the East Ghor Canal in order to utilize the water of Shu'aib and Kafrein Dams as well as carrying Husban water into Kafrein Dam via a pipeline. Thus, about 13,000 dunums can be brought under irrigation. Total costs are estimated at JD 391,000 to be financed from foreign assistance. Costs over the Plan period are put at JD 280,000 to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	80	130	70	280

5. Irrigating Areas in the North East Ghor Above the Main Canal (Excluding Zighlab)

This project aims at irrigating 11,520 dunums above the East Ghor Canal. Costs have been estimated at JD 476,000 which will be financed from foreign assistance and are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	165	174	137	476

6. Pumping From Side Wadis

This project aims at irrigating 2430 dunums of fertile land above the East Ghor Canal area to which water does not flow by gravity. Costs, estimated at JD 88,000 will be financed from foreign assistance and are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	35	29	24	88

7. Protection Works, Groundwater and Feasibility Studies

These consist of the following activities :

a. Distribution of reclaimed land to farmers.

b. Construction of a water distribution network in the Shueib, Kufrein and Husban areas.

c. Establishment of water users organizations for participation in the supervision of water distribution and training of farmers on water distribution.

d. Feasibility studies for :

(i) Protection of land on the banks of the Jordan River from floods and erosion.

(ii) Study of the underground water situation in the Jordan Valley and defining its characteristics.

(iii) Survey of the areas which are in need of drainage.

(iv) Carrying economic feasibility studies for Wadi Arab dam and other side wadis in the northern part of the Jordan Valley.

e. Training of staff that supervise the distribution of water on the job and abroad.

f. General consulting services.

Invitation of experts for consultation on matters related to management, drainage, maintenance, underground water, administration and designs.

The cost of these works is estimated at JD 731,000 to be financed from foreign assistance and is distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	221	274	236	731

SUMMARY OF THE IRRIGATION PROJECTS OF THE PLAN FOR RE-HABILITATION AND DEVELOPMENT OF THE JORDAN VALLEY AREA

(in JD 000's)

	1973	1974	1975	Total
Developing East Ghor area	324	435	334	1093
Zerka River project	5289	2973	—	8262
Irrigating land above the canal of Shurhabeel Ibn Hasna Dam	64	75	41	180
Developing Shu'aib-Kafrein-Husban area	80	130	70	280
Irrigating the area north of the East Ghor Canal	165	174	137	476
Pumping side wadis water	35	29	24	88
Protection works, ground-water and Studies	221	274	236	731
Total	6178	4090	842	11110

b. Irrigating Southern Ghors

This project includes updating the study on the Mujib project which was conducted by Sir M. MacDonald and Partners in 1969 and which indicated that the implementation of this project will secure the needed waters from Tanour dam to irrigate 20,000 dunums in Ghor Safi. Also, the Mujib diversion dam will provide the needed waters for the irrigation of 40,000 dunums in the other Southern Ghors. The project aims at carrying out the following action during the Plan period :

1. Lining irrigation canals in Ghor Feifa and Ghor Mazra.
2. Constructing flood protection works for lands in the Southern Ghors.
3. Construction of Tanour Dam at Wadi Hasa.

Total Cost of this project is estimated at JD 3.0 million of which JD 2.0 million will be spent during the Plan years to be financed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	300	700	1,000	2,000

c. Irrigating Highland Areas

The low intensity and poor distribution of rainfall is the major obstacle to development of agriculture in the high-lands. Accordingly, the expansion of arable land in the plateaus through utilizing ground-water is the proper means for developing agriculture, diversifying crops and increasing output.

A number of pilot irrigation projects were initiated in the areas of Dhuleil, Karak-Hasa, Arja-Owaina and Sultani-Qatrana. It is proposed that these projects be expanded once their economic feasibility is confirmed and if abundant water reserves are proven. It is also proposed that pilot irrigation projects whose studies are already being conducted be implemented and that new pilot projects be started. The Natural Resources Authority has prepared the designs and studies related to the projects of Abu Lasan, Shoubak and the Eastern and Middle

Sultani area. The cost of pilot irrigation projects over the Plan period are estimated at JD 991,000 to be financed from the government budget and foreign assistance in accordance with the following distribution :

	Area to be irrigated (dunums)	1973	1974	1975	Total
		(in JD 000's)			
A. Projects whose studies and designs have been prepared :					
1. Abu Lasan	1,200	81	—	—	81
2. Eastern Sultani	2,000	70	57	—	127
3. Middle Sultani	700	—	55	—	55
4. Shoubak	4,500	—	150	150	300
B. New Pilot Projects					
1. Suwaka	2,700	30	73	100	203
2. Wahida	3,000	150	75	—	225
Total	14,100	331	410	250	991

d. Developing and Exploiting Ground-water

In late 1971, the agreement relating to the implementation of the second stage of the project of developing and exploiting ground-water was concluded with UNDP. This stage includes determining cultivable land to be irrigated in areas where sufficient ground-water is available, utilizing such water for developing arable land and increasing its productivity, detecting and exploiting ground-water resources, and conducting technical and economic feasibility studies for exploiting them. It is proposed that the above-mentioned agreement, which will expire in 1974, be extended for three additional years in order to complete the work of developing and exploiting ground-water resources.

The Cost of this project over the Plan period is estimated at JD 435,000 to be financed by UNDP (JD 315,000) and from the government budget (JD 120,000) and is distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	40	40	40	120
UNDP	110	95	110	315
Total	150	135	150	435

e. Studies on Water Sources and Their Uses

This project aims at undertaking survey studies on the present water situation in the Kingdom in terms of volume of available resources, their locations, sources, assessment of future prospects, uses, and water tariff charges so as to produce a long term policy for the uses, exploitation and development of water resources.

Costs are estimated at JD 100,000 to be financed from foreign aid, and are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign aid	50	50	—	100

SUMMARY OF IRRIGATION SECTOR PROJECTS

(in JD 000's)

	1973	1974	1975	Total
a. Irrigation Projects of the Plan for rehabilitation and development of the Jordan Valley area	6,178	4,090	842	11.110
b. Irrigating Southern Ghors	300	700	1,000	2,000
c. Irrigating Highland Areas	331	410	250	991
d. Developing and exploiting ground-water	150	135	150	435
e. Studies on sources and uses of water	50	50	—	100
Total	7,009	5,385	2,242	14,636

5. INDUSTRY AND MINING

During the period 1959-1966 the Industry and Mining Sector realized substantial rates of growth, averaging 16% annually. The Seven Year Programme for Economic Development (1964 - 1970) aimed at increasing the contribution of this sector to GDP from JD 10 million to JD 15.8 million during the period, or at an annual rate averaging 7.5%. The actual contribution was JD 17.3 million in 1966, JD 23.1 million in 1969, JD 19.8 million in 1970 and JD 21.0 million in 1971. This represented an annual average rate of growth of 9.4% during the period 1963-1971, thus surpassing the expectations of the referenced Programme.

Needless to say, the 1967 June War, the occupation of the West Bank and the closure of the Suez Canal had adverse effects of considerable impact on the continued growth of the industry and mining sector. This is mainly attributed to the loss of a substantial portion of the consumption market for local industrial products, the shrinkage in the volume of phosphate exports and the increase in its shipping costs. Moreover, the internal disturbances of 1970 and the closure of the Syrian and Iraqi borders with Jordan in 1971 aggravated the problems facing this sector. Inevitably, these difficulties retarded the willingness of the private sector to invest in industrial and mining projects, in addition to freezing mineral exploration activities in a number of projects, mainly in the Wadi Araba area.

The restoration of internal stability in 1970 had an unmistakably positive effect on the resumption by the industrial and mining sector of its previous thrust and dynamism. This has been amply demonstrated by the many applications submitted to both the Ministry of National Economy and the Industrial Development Bank to establish and finance new industries, as shown in the following table :

Year	No. of Applications submitted to Ministry of National Economy	Total Suggested Value to be Invested (JD 000)	No. of Applications Submitted to Industrial Development Bank	Total Required Value of Loans (JD 000)
1970	6	355.0	36	992.0
1971	24	654.0	21	368.5
1972 (first half)	39	2258.0	20	738.5

During the period 1964-1971, a number of achievements were accomplished.

a) Economic and technical feasibility studies for industrial projects were conducted, in addition to the resumption of geological survey activities aiming at the exploration of new ores, the preparation of general geological maps (published in scales of 1:750,000; 1:250,000 and 1:100,000) and the preparation of other maps for major areas in the Kingdom (in scales of 1:50,000 and 1:25,000).

b) During the same period, a number of factories producing the following commodities were established : animal feed, biscuits, confectionaries, dairy products, table salt, carbonated beverages, woolen and cotton textiles, blankets, cement pipes and poles, cosmetics, pharmaceuticals, wet and dry batteries, paints, construction steel rods, and plastics.

c) The capacities of both the Oil Refinery and the Cement Factory were expanded, and exploitation of phosphates at the Hassa area was started.

d) In September, 1965, the Industrial Development Bank started functioning by extending medium-term loans to industrial and tourist projects. Since the beginning of its operation and up to the middle of 1972, this Bank extended 134 loans amounting to JD 3.168 million, out of which JD 2.664 million was provided to industrial projects.

e) A new law, Encouragement of Investment Law No. 1 of 1967, was enacted. This law provided for a number of incentives and facilities in order to attract both domestic and foreign investments to developmental projects.

f) The Jordan Centre for Industrial Development, attached to the Ministry of National Economy, was established to participate in conducting economic and technical feasibility studies and to pinpoint investment opportunities.

g) The Directorate of Standards and Specifications, attached to the Ministry of National Economy, was established to inspect the quality of locally produced commodities and to set standards and specifications for domestic production.

h) Within the scope of the Natural Resources Authority, a special Department for Geological Research and Mining was established to conduct mineral surveys, prepare geological maps for the Kingdom, supervise and enforce measures taken to ensure public safety in mining utilities.

i) The following table contains some of the main indicators of development in the industrial and mining sector during the years 1963-1971 :

1. **INDUSTRY**	1963	1966	1969	1970	1971
Total Number of Employees	25,424	33,442	36,861	—	33,529
Total Salaries & Wages (in JD 000's)	2,587	4,342	5,782	5,944	6,071
Value of Total Production at producers' prices (in JD 000's)	25,708	38,404	50,101	47,716	47,931
Value Added (in JD 000's)	9,076	14,766	19,838	16,988	18,200
2. **MINING**					
Total Number of Employees	4,167	3,815	4,173	—	3,883
Quarrying	2,638	2,805	2,889	—	2,864
Mining	1,529	1,010	1,284	—	1,019
Total Salaries & Wages (in JD 000's)	1,093	1,241	1,651	1,426	1,751
Quarrying	792	896	1,053	845	1,222
Mining	301	345	598	581	529
Total Value of Production (in JD 000's)	2,632	3,939	3,986	4,790	4,317
Quarrying	1,390	1,684	1,843	1,561	1,952
Mining	1,242	2,255	2,143	3,229	2,365
Value Added (in JD 000's)	1,524	2,501	3,277	3,016	2,815
Quarrying	1,093	1,341	1,569	1,354	1,494
Mining	431	1.160	1,708	1,662	1,321
Contribution of industry & mining sector to GDP%	9.0	11.5	11.6	9.9	10.0

j) In 1972, an overall industrial survey was initiated in order to identify the nature of domestic industry, its components, problems, production capacities, potential aspects for improvement and to specify new industrial opportunities according to their rank in the scale of priorities. The final report on the results of this survey will be available before the end of 1972.

2. Characteristics and Problems

a) There are only few large industrial firms as opposed to a great number of small industrial establishments. Industrial firms employing 10 persons or more contribute 70% of the total value of industrial output, wages and salaries. Industrial firms employing 200 persons or more, although not exceeding six in number, produce 45% of the total value of industrial output.

b) There is a wide gap between the production of large and small firms. The average value added per worker in industries that employ 200 persons or more in JD 830 per annum, as against JD 288 in smaller industries.

c) The domestic transforming industries depend primarily on a limited local market. While the total value of domestic industrial output amounted to JD 50.1 million in 1969, exports did not exceed JD 2.0 million.

d) Most industries operate at under-capacity level. Consequently, available productive capacities are underutilized.

e) Jordanian industry is generally characterized by a shortage of semi-skilled labour and a dependence on proprietors for management. Therefore, it seldom engages entrepreneurial skills that are deemed necessary for the emergence of modern industries operating in conformity with modern scientific principles of industrial management. This is attributed to the small size of invested capital, unwillingness of some industrialists to take the risks embodied in innovation and to the traditional attitude prevailing among proprietors, who insist on directly supervising all facets or activity.

f) Industries that produce consumer goods form the majority of existing domestic industries. Despite the fact that this proportion tended to recede throughout the last seven years, the proportion of the value added generated by these industries still forms 57% of total industrial value added.

g) As yet, Jordanian industry still depends primarily on imported raw and intermediary materials due, on the one hand, to the shortage of discovered and utilized domestic natural resources and to weakness in inter-industry integration and, on the other hand, to the weakness in coordination between the industry and mining sector and other economic sectors, especially agriculture. Consequently, the increase in industrial output has not been accompanied by a decline in the trade deficit.

h) Industrial enterprises are concentrated in the Amman - Zerka area. Some reasons for the concentration are :

1. The fact that the Amman - Zerka area is considered to be the principal consumer market.
2. Availability of labour and other facilities, such as water, electricity, transportation, maintenance, etc.
3. Absence of an organizational plan which forces or even encourages the distribution of industrial projects through the different areas of Jordan.

i) Some domestic industrial products are inferior in quality to similar imported products. This is due to the fact that the majority of industrial enterprises have no laboratories or technical staff to help them cope with quality-control requirements. The absence of a competent body responsible for quality inspection and the setting up of standards and specifications aiming at consumer protection has encouraged local producers to neglect the improvement of their products. Moreover, some industrialists, whether proprietors or managers, do not give proper consideration to the adoption of modern and technical packing methods capable of attracting the attention of the consumer and ensuring his satisfaction.

j) Prices of some locally manufactured products are higher than those of similar imported ones because some of the existing domestic industries have enjoyed excessive protection advantages and privileges. Hence, these industries have ignored the need for improving the quality of their products or even reducing production costs. Moreover, failure to adopt clearly defined principles and regulations governing licensing, proctection and exemptions, along with immaturity on the part of agencies responsible for production inspection and the setting up of standards, specifications and quality-control requirements, have all encouraged the prevalence of inadequacies.

k) Because of the huge amounts of money required for initial expenditures and the high risks involved in mineral exploration, the private sector has been rather reluctant to invest in these activities. This did not help to expedite the positive identification of natural rsources as a first step leading to actual production.

l) Domestic capital is inclined to invest in quick-return projects of a commercial or real-estate nature rather than invest in industrial development projects. Despite the facilities and incentives granted to foreign investors under the Encouragement of Investment Law, foreign capital has not participated in industrial development in Jordan. Foreign investment, made almost exclusively by citizens of Arab countries, has been confined to shareholding in existing industrial enterprises.

m) Lack of effective industrial co-ordination among the Arab countries which would help to establish specialization in industry, these countries form the natural and major market for most of the Jordanian products.

n) The high cost of fuel and power due to the unavailability of local sources of crude oil which is imported at high cost.

o) Cost-accounting is utilized in a limited number of industrial enterprises. There is no uniform system of industrial costing, and no official body has been established to supervise the application of industrial costing in industrial firms.

3. Goals

The industry and mining sector is one of the main economic sectors with a direct bearing on the realization of the general goals of the Plan. Therefore, it is essential that great importance be attached to its development and growth so as to create an integrated economic entity characterized by an ever-increasing ability to produce goods, earn foreign currency and provide new and varied job opportunities.

The goals of industry and mining development during the Plan are as folllows :

a) Increase income accruing from this secetor from JD 21.0 million in 1971 to JD 35.5 million in 1975, or by 69%.

b) Make full use of underutilized capacities in existing industrial and mining enterprises, which range between 25% and 35% of installed capacities in 1971.

c) Create not less than 9,000 new job opportunities during the years of the Plan.

d) Realize a better geographical distribution of industrial establishments in all regions of the Kingdom.

e) Realize a higher degree of inter-relationship among industries on the one hand, and between the industry and mining sector and other economic sectors on the other hand, in addition to providing for stronger industrial compatibility with all Arab countries.

f) Increase the exports of national industrial and mining products from JD 4.8 million in 1971 to JD 12 million in 1975, besides participating in the production of import-substitute commodities.

g) Utilize mineral resources that prove to be abundant and feasible, and conduct detailed geological studies for ores whose initial indications are encouraging.

4. Organizational and Policy Measures

a) Establishing an Industrial Development Corporation

The Government currently holds shares in 26 local companies. These include 19 companies dealing with industrial activities, 2 with transportation, 4 with tourism and 1 with agricultural marketing. Out of the total capital of JD 28.9 million of these companies, the Government's shares amount to JD 9.4 million, out of which JD 7.5 million are in industrial companies.

In addition to its contribution to capital, the Government participates in the management of these companies through appionted representatives on their boards of directors. Its share of the dividends is usually transferred to the Treasury.

While it is understood that the main objective of the Government's contribution to capital formation is to support these industries during their early stages of development, none of the Government's shares, however, have been sold and reinvested in new development projects.

Therefore, it was decided to create a corporation attached to the Minister of National Economy. This corporation would undertake the administration of Government investments in industrial establishments and the revenues accruing from these investments, with the major objective of reinvesting them in new industrial projects and supporting existing industrial establishments that may face financial, administrative or technical difficulties, whenever such a step is found feasible. The private sector should be given a chance to participate in about 25% of the capital of this corporation after re-evaluating Government shares in establishments that will be under the administration of the corporation, according to market value.

The private sector will also be represented on the board of directors of the corporation and its shares will be treated as preference shares with a fixed yield.

The financial resources of this corporation will be composed of the following :

1. An interest-free Government loan of JD 100,000 repayable over a period of ten years and is to be placed at the disposal of the corporation.
2. The total value of Government shares in industrial companies.
3. Any future Government capital participation in industrial companies.
4. The participation of the private sector in the capital of the corporation.
5. Dividends on Government shares in industrial companies, provided that 50% of these dividends is transferred to the Treasury annually.
6. The reserves of the corporation or any other reserves due to the Government against its shares in industrial companies.

7. Securities, loans, grants and donations provided by the Government or any other source, and any other fees charged by the corporation for conducting research or studies for Government or any other party.

b) Providing Incentives for Investment Promotion

The Encouragement of Investment Law No. 1, of 1967, has to be revised with the objective of including additional facilities and incentives for investment promotion in the Kingdom such as the following :

1. Exempting the profits realized from investments in new and approved development projects from income, social service, and property taxes for seven years for projects located in the Amman-Zerka area and for 9 years for those located elsewhere, provided that the Ministry of National Economy defines the Amman-Zerka area for industrial purposes.
2. Exempting the machinery and equipment of new and approved development projects from import duty, customs duty and surtaxes.
3. Providing adequate guarantees for capital against all non-commercial risks.
4. Allowing foreign participation to aquire any desired percentage of the total capital of approved development projects, provided that each case is dealt with individually.
5. Granting special concessions, under individual agreements, for mining industries established to exploit local mineral ores and industrial rocks, provided that those industries are economically feasible, for the purposes of local manufacturing or for exporting ores and rocks in concentrated forms.
6. Establishing a Bureau for Investment Promotion having

as its main objective the orientation of local and foreign investors and financing agencies towards available investment opportunities in development projects. This service is to be accomplished through such channels as reports, publications, conferences and seminars, local exhibitions, participation in international fairs, and the use of various information media.

7. Simplifying procedures concerning the exemption from all duties and taxes of all imported raw materials and semi-finished products not available locally, for the purpose of processing and re-exportation.

c) Revising the Bases of Industrial Licensing Protection and Encouragement.

1. Issuing regulations for industrial licensing, embracing the following major elements :

(i) Prohibiting the establishment of any new local industry with a fixed capital allocated for machinery and equipment exceeding JD 20,000 unless the applicant submits an adequate economic feasibility study in the light of prevailing conditions. When final approval is granted, a specified period for implementation must be stated.

(ii) Complying with the manufacture of the product for which the license was issued and ensuring against making any basic changes in the objectives of the factory.

(iii) Adhering to the factory location stipulated in the license.

(iv) Unconditionally permitting the establishment of any industry if the capital allocated for machinery and equipment does not exceed JD 10,000 provided that no large industry be split-up into smaller units for the purpose of benefiting from this provision.

No duplication of industry should be allowed in the country (unless the proposed factory is export-oriented) :

If the production of existing factories is sufficient to meet local demand ; if the products of existing factories comply with official specifications and standards ; and if the products of existing factories sell at reasonable prices as determined by accepted cost - accounting techniques.

(v) Permitting the establishment of industries engaged in the assembly or packaging of products not made in Jordan, provided that no customs protection be granted to these industries, unless the value added is not less than 40%.

(vi) Permitting the establishment of handicraft industries, without limitations.

2. Adopting the tarrif protection principle as a basis for protecting local industries. Recourse to prohibitive import protection should be made only in accordance with the provisions of special laws or in exceptional cases of public shareholding companies with paid-up capital not less than JD 200,000 and an average value added, during the preceding three years, of at least 40%. Moreover, should local and external demand justify the establishment of similar industrial projects, permission to do so may be granted, taking into account their geographical location.

3. Exempting from all fees and duties all machinery and equipment needed to establish new industries or expanding existing ones.

4. Setting up and enforcing internationally recognized standard specifications, aiming at ensuring good quality of local products in order to protect the consumer and earn a good reputation in foreign markets.

5. Requiring that Government bodies and municipalities strictly observe that all their purchases comply with Jordan standard specifications. The public sector should also confine its purchases to local industrial products as long as they conform with applicable specifications, provided that their prices do not exceed those of similar imported products by more than 10%.

6. Encouraging establishments engaged in the production of construction materials and in mining and quarrying activities, such as marble, bricks, pottery, etc., owned by the private sector, to improve, diversify and develop their production.

d) Expediting the application of the industrial register system in the Ministry of National Economy.

e) Issuing special regulations specifying measures to be taken regarding protection against accidents in industry and public safety hazards, and making mandatory on establishments to take the necessary steps to ensure protection of the environment against pollution.

f) Encouraging the Merger of Small Industries :

The merger of existing small inrustries must be encouraged in order to enable them to overcome whatever technical, administrative or financial problems they now encounter. Such mergence will also facilitate the provision of consultancy and technical services to these industries. In addition, these industries will be in a better position to diversify production, improve the quality of their products and employ modern techniques in production and marketing.

Such encouragement may be effected either through establishing specific industrial zones for similar industries, where all necessary services are made available, or by granting these industries, after merger, special exemptions under the new Encouragement of Investment Law and giving preference to industries merged to become cooperative societies.

Some of the recommended industries, the merger of which is to be encouraged, are those engaged in the production of the following products : shoes, metal furniture, wooden furniture, iron work, tiles, marble, pastes and macaroni, carpentry, aluminium, plastics, tricot, clothings, carbonated beverages, confectioneries and automobile repair.

g) The Establishment of a Special Fund in the Industrial Development Bank for Extending Loans to Craftsmen and Small Industries.

Craftsmen and proprietors of small industries face difficulties in obtaining loans to finance their activities due to their inability to provide acceptable warranties to existing trust-fund agencies. Therefore, it is proposed that a special fund be established within the Industrial Development Bank with a capital of JD 300,000 to extend loans with low interest rates and easy terms to these groups.

h) The Establishment of Industrial Zones

The grouping of industries in zones, where basic services are made available at reasonable prices, will undoubtedly help develop these industries, improve the quality and reduce the cost of their products. It will also help distribute industries over various regions of the Kingdom. Therefore, it is proposed that industrial zones be established in Amman and other areas.

Taking into consideration the emphasis the industrial development plan attaches to export-oriented industries and upgrading the quality of local raw materials prepared for export, and since studies have proved that the Aqaba area is considered the most appropriate location to establish the majority of large industries enumerated hereunder, it is recommended that 1,000 dunums of land, south of the phosphate loading berth in the Port of Aqaba be allocated for industrial purposes, provided that due attention be given to preserving tourist potentialities along the Aqaba coast and protecting it from pollution hazards.

i) Extending adequate support to the Department of Geological Survey and Mining by providing it with qualified personnel and technical machinery and equipment (in the light of the Government's policy to standardize its equipment), in order to increase its potential and enable it to continue such activities as conducting general geological surveys, exploring for minerals and industrial rocks, and carrying out exploration, digging and analysis needed for estimating the quantities and quality of reserves.

j) Continuing the gathering of technical information and conducting exploration activities, studies and investigations to enhance the possibilities of discovering oil in Jordan, either through the Natural Resources Authority or by granting foreign companies exploration concessions in areas not already included in other concessions.

In 1972, an agreement was concluded with a Canadian Company (Desco), granting it a concession for oil exploration in certain areas of the Kingdom.

k) Increasing the efficiency of those working in the industry and mining sector through professional and on-the-job training. Such training must also be extended to industrial management activities. Constant efforts must be made to sign bilateral agreements with industrially developed countries for the purpose of training Jordanians in various technical and professional fields, as part of technical aid programmes.

l) Requesting industrial companies and establishments with equity exceeding JD 10,000 to adopt industrial cost accounting procedures in accordance with a standardized system. The Ministry of National Economy and the Amman Chamber of Industry may be asked to prepare such a system, taking into consideration what has already been accomplished in this field within the framework of the Industrial Development Centre for Arab Countries. A special office within the Ministry of National Economy should be established to supervise the application of the system to be formulated for this purpose.

5. Projects

a) Mining Projects

Part of the accomplishments which have been achieved during the period 1964-1971 are detailed assessments of some mineral occurrences such as iron ore at Ajlun, sulphur occurrences at Maghtas area, ball clay at Mahis and Ghor Kabid, oil shales at Lajjun, glass-sand at Ras en-Naqb and Aqaba, feldspar at Wadi Yutum and manganese at Wadi Dana. In addition to this, some reconnaissance studies have been made for copper occurrences in Finan area, gypsum and tripoli in the Karak District, potassium - sodium salt rock in the Lisan area and tuff in the H-5 area. Economic feasibility studies have also been completed for the copper occurrences at Abu-Khusheiba, potash from the Dead Sea brines and for the manufacturing of ceramics, glass and building materials from mineral ores which have already proved to be available in adequate quantities and qualities.

In order to proceed with the development and utilization of the above-mentioned minerals besides other possible resources, the following projects are recommended :

1. Establishment of a Public Mining Company for Producing and Exporting Clays, Feldspar, Glass-sand and Tripoli.

As a result of the surveys conducted by the Mining Department in the Natural Resources Authority (MD/NRA), it was proved that adequate reserves of good quality clays suitable for the manufacturing of ceramics, white cement, refractory bricks and pottery are available at Mahis, Baqa'a and Ghor Kabid areas. It was also established that a medium grade feldspar ore is available at Wadi Yutum near Aqaba. Further exploration programmes have also shown that tremendous glass-sand reserves of outstanding quality are available at Ras en-Naqb and near Aqaba. Tripoli occurrences also exist in the Karak District.

Since the established reserves of clays, feldspar and glass-sand exceed the requirements of the ceramic and glass factories to be established in Jordan, and due to the good prospects of exporting these minerals, this project has the following aims:

a) To begin production of raw clay at a capacity of 25,000 tons per year, to meet the requirements of the proposed local ceramic plant and for export.

b) To take the necessary measures to begin production of glass-sand, to meet the requirements of the glass factory and for export.

c) To conduct a technical and economic feasibility study for the production of feldspar, including the construction of a beneficiation plant for the treatment of the ore with an average annual output of about 7,000 tons. Part of the production will be used in the manufacturing of ceramic and glass. The rest is to be exported.

d) To conduct a technical and economic feasibility study for the tripoli occurrences in the Karak District and, if feasible, to construct a beneficiation plant for the treatment of the ore and start production for export purposes.

Since most of the minerals available in Jordan are of the industrial type that can be mined and marketed either with or without processing and beneficiation, it is recommended that a company be formed with an initial capital of JD 100,000. The Industrial Development Corporation, the Phosphate Mines Co., the Ceramics Company and other firms and individuals will participate in the proposed mining company.

This company will be responsible for the mining, beneficiation and marketing of all industrial minerals. Production of clay to meet the requirements of the ceramics plant must start before the end of 1973, and glass-sand before the end of 1974 ,to meet the requirements of the glass factory. It should also initiate technical and economic studies for the feldspar and tripoli, and, if feasible, to start production for local consumption and export.

In case new industries are started that are dependent on mineral ores and fall under the umbrella of the proposed company before the latter has started its operations, such industries will be entitled to mine their own requirements.

Establishing such a company will create employment for about 300 people. The value of production is expected to be JD 350,000 per year, out of which JD 300,000 will be exported.

The investment necessary for this project is estimated at JD 250,000. The project will be financed from the capital of the mining company plus local and foreign loans, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Mining Co. equity and local and foreign loans	50	100	100	25

2. Expanding and Upgrading the Production of Phosphates

Phosphates are the major known and widely utilized mineral resource in the Kingdom. Phosphate deposits exist in abundance, mainly in the central strip of the country extending along the Hedjaz railway between Zerka north and Hittiyeh south. Proven and indicated reserves at Ruseifa and Hasa are 130 million metric tons and 140 million metric tons respectively.

In 1966 the new phosphate plant of Hasa was amalgamated with the Jordan Phosphates Mining Company (JPMC), which is responsible for the mining and marketing of phosphates. The Jordan Government owns about 65% of the JPMC's capital, which is JD 3 million.

Phosphate production has increased considerably: from 75,000 tons in 1954, to 362,000 tons in 1960 and 1,158,000 tons in 1968. The value of phosphate exports had risen from JD 265,000 in 1954 to JD 4,212,000 in 1968. The mining and exporting of phosphates are among the most important activities in the industry and mining sector from the point of view of production capacity, size of employment, returns in foreign currency, where the value of phosphate exports represents about 35% of the total value of exports.

It had been expected that the export of rock phosphates would reach about 2 million tons in 1970; however, the 1967 June War and the closure of the Suez Canal engendered a decrease of phosphate export to Europe and some Middle East countries. The increase in freight rates and the absence of adequate storing and loading facilities at the Port of Beirut caused an increase in the cost of phosphates and weakened its competitive strength in the international markets. Also the closure of the Syrian borders in 1971 put new obstacles in the way of exporting phosphate to Eastern Europe and some Middle East countries.

The Jordan Government has paid great attention to the marketing of phosphates. It proceeded to construct a deep berth at the Port of Aqaba, linked with two storage depots by means of automatic loading facilities. The phosphate export capacity of Aqaba thus rose to 2 million tons per year.

JPMC had already signed contracts to export 1,188,000 tons during 1972 : 942,000 tons through Aqaba and the rest through Beirut. It is expected that export during 1973 will amount to 1,420,000 tons. The company's future programme aims at exporting 1,970,000 tons and 2,250,000 tons during 1974 and 1975 respectively.

Owing to the importance of phosphate to Jordan's economy and due to increased demand, and in order to meet the requirements and specifications of customers, a programme has been prepared aiming at increasing production capacity and upgrading quality. Moreover, construction of a new railway connecting Hittiyeh station with Aqaba has been initiated so as to cut transportation costs and increase haulage capacity from the mines to the Port. These arrangements will increase the competitive position of Jordanian phosphates on international markets. In turn, they will also lead to expansion in exports and opening up of new markets.

This programme which aims at increasing the established reserves, raising the production capacity and improving the grade of phosphate, consists of the following two major parts :

a) To continue exploration, and to develop and improve methods of beneficiation. During 1971, an agreement was signed with UNDP to participate in these activities and to assist in preparing designs for a beneficiation pilot plant. It is recommended here that a supplement be made to the present agreement whereby UNDP would contribute to the cost of building the beneficiation pilot plant. This part of the project will cost, during the Plan period, an estimated JD 850,000. The project will be executed by UNDP in cooperation with MD/NRA and JPMC. UNDP will contribute JD 600,000 out of the total cost of the programme, while the Jordan Government and/or JPMC will participate with JD 250,000 mostly in kind.

(in JD 000's)

	1973	1974	1975	Total
Exploration & Design				
a) Government budget	50	—	—	50
b) UNDP	200	—	—	200
Construction of the Pilot Plant				
a) JPMC and/or Government budget	—	120	80	200
b) UNDP	50	230	120	400
Total	300	350	200	850

b) Expansion of production from Hasa and improvement of quality. This part of the project aims at increasing the production capacity of Hasa mines up to 2.25 million tons (which brings the total production of JPMC to 3 million tons). It also aims at increasing the capacity of the existing beneficiation plant by adding new installations and units in order to increase the output of high-grade phosphates to 2 million tons in 1975, out of the total production of JPMC.

It is expected that this project will employ about 800 persons. The increase in output of upgraded phosphates will also lead to an expansion in exports and, consequently, to a rise in foreign currency earnings.

The cost of this programme, during the Plan period, is estimated at JD 4 million, which will be provided by JPMC through Kuwaiti, British and other loans against a warranty by the Government. This investment will be distributed over the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
JPMC and foreign loans	700	940	2,360	4,000

SUMMARY OF THE COST OF EXPANDING THE PRODUCTION CAPACITY OF PHOSPHATES AND IMPROVING ITS GRADE

(in JD 000's)

	1973	1974	1975	Total
Government contribution	50	120	80	250
UNDP contribution	250	230	120	600
Private sector contribution & foreign loans	700	940	2,360	4,000
Total	1,000	1,290	2,560	4,850

3. The Copper-Manganese Project

Reconnaissance exploration surveys conducted in the vicinity of Wadi Araba have revealed good prospects of copper and manganese ores which could satisfy a minimum production rate of 10,000 tons of copper and 100,000 tons of manganese per year.

Before a decision can be made on the feasibility of these ores the following steps are deemed necessary :

a) A detailed exploration of the copper prospects so as to prove a minimum of 25 million tons at a minimum of 1% average Cu-content.

b) A technical and economic feasibility study for the utilization of these ores.

It is expected that such a project will employ a minimum of 300 persons during the period of studies, and its cost is estimated at JD 1,400,000.

Execution and financing of this project could be either through a leading concessionaire or by the Government with the help of an international consultant. The cost of the project, distributed over the three years of the Plan, will be :

(in JD 000's)

Foreign investment and/or	1973	1974	1975	Total
Government budget	100	300	1,000	1,400

4. Studying the Exploitation of Salt and Manufacture of Soda Ash.

Large reserves of salt are available in the Azrak and Lisan areas in the form of highly saline underground waters in the former and rock salt layers in the latter.

This project aims at conducting a study for building two factories to produce salt and sodium carbonate for export purposes and for meeting domestic demand. It is proposed that a consulting firm be asked to undertake this study.

The greatest proportion of sodium carbonate output will be used to meet the demand of the proposed glass factory and other domestic industries such as soap and detergents.

Costs are estimated at JD 100,000 to be financed from foreign assistance and will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign assistance	100	—	—	100

5. Oil Exploration

An agreement was signed in April 1972, with the Canadian firm Desco, under which Desco was granted, jointly with the Natural Resources Authority, a concession for the exploration and exploitation of oil in Jordan. The period of this concession, which covers half of the East Bank area, is 25 years subject to renewal. Desco will carry out exploration and drilling operations and it has undertaken, under the agreement, to spend 20 million Canadian Dollars throughout the four exploration stages, the duration of which will be 15 years starting from the date of ratifying the agreement. The said company is committed to expend 12.5 million Canadian Dollars during the first stage, which will last for six years. Consequently, it is expected that Desco will spend not less than 6.5 million Canadian Dollars (= JD 2.3 million) during the years 1973-1975. (Expenditures on oil exploration have been considered a part of private investments).

b) Industrial Projects :

1. Ceramics Factory

After it was proved that good quality clays are available in adequate quantities at Mahis, Baqa'a and Ghor Kabid, the Jordan Centre for Industrial Development of the Ministry of National Economy (JCID/MNE), with the assistance of UN experts and NRA, carried out industrial tests for these clays at ceramic plants in Turkey to confirm its suitability for the manufacturing of ceramics locally. This step was followed by a comprehensive technical and economic study which revealed the feasibility of building a wall-tile and sanitary-ware plant. Later on, the National Planning Council (NPC) employed an international consulting firm to review and appraise these studies and to prepare the tender specifications documents of the plant. The consultants, after repeating the industrial tests on raw material and reviewing the economic study, confirmed the feasibility of a ceramics plant with an annual capacity of 3,500 tons of wall-tiles, 3,200 tons of sanitary-ware, 500 tons of electric-insulators and other commodities. The consultants also completed the tender documents of the plant. Out of the output of the plant, 2,000 tons of wall-tiles and 2,000 tons of sanitary-ware will be for export. About 200 persons are expected to be employed in this project and its earnings of foreign exchange are estimated at JD 350,000 per year.

A national company with a capital of JD 750,000 has elready been established to carry out the implementation of this project. The cost, which is estimated at JD 1.6 million, will be financed from the capital of the company in which the Government is participating, the private sector and foreign loans and participation, distributed over the years of the Plan as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget	100	30	20	150
Private sector	100	400	200	700
Foreign loans & participation	30	420	300	750
Total	230	850	520	1,600

2. Manufacturing of Glass Sheets

Geological surveys conducted by MD/NRA have proved that huge reserves of good quality silica sands are available in the Ras-el-Naqab and Aqaba areas. Semi-industrial testing of these sands showed that it is outstandingly suitable for manufacturing first-quality sheet glass and containers.

Accordingly, the NPC employed an international consultant to study the technical and economic feasibility of glass manufacturing in Jordan. The first findings of the consultant showed that a sheet-glass plant of a 4,000 ton annual capacity is feasible. The detialed technical and economic studies for such a plant will be ready by the end of 1972.

It is worth noting that in case a soda-ash plant is built locally, the input of Jordanian raw materials such as silica-sand, feldspar and dolomite besides soda ash, which will be needed for the manufacturing of glass, would amount to about 90% of the total input of raw materials in the manufacture of sheet-glass.

The glass factory is expected to employ 95 persons. Its cost is estimated at JD 540,000 which will be provided by the private sector, the Government budget and foreign participation as follows :

(in JD 000's)

	1973	1974	1975	Total
Private sector	50	100	150	300
Government budget and foreign participation	40	100	100	240
Total	90	200	250	540

3. Establishing a Phosphoric Acid Plant

About 30% of the run of existing phosphate mines in Jordan is proto-ore of low grade with a TCP content not more than 54%. Since the beneficiation cost of this portion of the run of mines would be very high, JPMC usually dumps it without any use. At present about 6 million tons of this proto-ore are accumulated and this stock is increasing at a rate of ½ million tons every year.

In the past, several studies have been conducted to install a chemical fertilizer industry in Jordan due to the availability of most of the raw material needed for such an industry locally. These studies proved that it was feasible to initiate such an industry starting, in the first stage, with the production of phosphoric acid by utilizing the phosphate proto-ore which is not marketed and importing sulphuric acid or producing it locally either from imported sulphur or by utilizing available local gypsum deposits. This project would assume the possibility of reaching an exchange agreement with one of the sulphuric acid producing Arab countries to supply this acid against phosphoric acid.

The second and third stages call for the expansion of this industry to produce NP and NPK fertilizers.

The annual production capacity of the proposed phosphoric acid plant is estimated at 110,000 tons. About 500,000 tons of phosphate proto-ore and 100,000 tons of sulphur in the form of sulphuric acid will be used.

The plant is expected to yield about JD 5.5 million in annual returns, out of which JD 3 million will be in foreign exchange.

It will also employ about 150 persons. Its cost is estimated at about JD 3 million, which will be financed from the Government budget and the private sector, with foreign loans and participation, distributed as follows :

(in JD 000's)

Government budget, local & foreign private sector and loans	1973	1974	1975	Total
	300	1,250	1,450	3,000

4. Development and Re-conditioning of the Paper Factory

In 1964, a paper factory was built with a capital of JD 600,000 and a production capacity of 5,000 tons of thick cardboard, manilla, craft and package paper. It now employs 180 persons. Recently, the Julitzer Consulting Company was asked to conduct a study to develop this paper industry. According to the Julitzer report and its amendments, which take into consideration the requirements of the local market, the following steps are recommended :

a) To make additions and improvements to the existing machinery of the paper factory in order to improve the quality of production and increase its capacity to a minimum of 6,000 tons per year, so as to meet the requirements of local and some foreign markets.

b) To build a new line for the production of corrugated cardboard, with an annual production capacity of 5,000 tons. The local market needs 1,500 tons of corrugated cardboard per year. Such line will employ 40 persons.

The estimated additional investment necessary to implement this project is JD 280,000 which will be financed from the Government budget and the private sector in the following manner :

(in JD 000's)

	1973	1974	1975	Total
Government budget	70	—	—	70
Private sector	210	—	—	210
Total	280	—	—	280

5. The Potash Project

Potash minerals are available in large quantities in the form of brines in the Dead Sea and as potash rock in the Lisan area.

A number of studies have been made in the past to investigate the technical and economic feasibility of exploiting potash from the Dead Sea brines. These studies were based on different scales of production. The latest study concluded that the investment needed for such an industry would be around JD 29.4 million and it was agreed in principle to finance the project from the following sources :

a) Arab Potash Company Arab Economic (local, Arab & foreign participation)	JD 7.8 million
b) Loans :	
(i) Kuwait Fund for Development	JD 7.1 million
(ii) U.S.AID	JD 7.1 million
(iii) World Bank	JD 7.4 million
Total	JD 29.4 million

It was expected that the implementation of the project would take six years, starting from the second half of 1967, and production would commence in 1973, with an initial capacity of 800,000 tons valued at JD 6.6 million, rising in 1976 to one million tons, valued at JD 8.3 million. But the 1967 June War froze the implementation of this project.

Due to the importance of exploiting potash to the Jordan economy, especially from the point of view of employment, returns in foreign exchange and utilization of national resources, it is recommended that the latest studies of the project be updated and that implementation be started according to the previous schedule, which was supposed to start in 1967.

The cost of this study is estimated at JD 100,000. Investments in the project itself are considered as part of private sector investments in industry and mining.

(in JD 000's)

	1973	1974	1975	Total
Private sector and foreign assistance	50	50	—	100

6. Private Sector Investments in Industry and Mining

Private sector investments in industry & mining (aside from investments foreseen in the above-mentioned projects) are expected to total JD 14 million during the Plan period (including expenditures on oil prospecting), and are envisaged to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Private Investments	3,000	4,000	7,000	14,000

SUMMARY OF INVESTMENTS IN INDUSTRY AND MINING SECTOR

(in JD 000's)

		1973	1974	1975	Total
a) Mining					
1.	Mining Company	50	100	100	250
2.	Expansion & Upgrading of Phosphate Production	1,000	1,290	2,560	4,850
3.	Copper - Manganese Prospecting	100	300	1,000	1,400
4.	Studies & Utilization of Salt and Soda Ash	100	—	—	100
5.	Oil exploration	—	—	—	—
b) Industrial					
6.	Ceramics Plant	230	850	520	1,600
7.	Sheet-Glass Industry	90	200	250	540
8.	Phosphoric Acid Plant	300	1,250	1,450	3,000
9.	Development and Re-conditioning of Paper Factory	280	—	—	280
10.	Potash Project	50	50	—	100
11.	Private Investments	3,000	4,000	7,000	14,000
	Total	5,200	8,040	12,880	26,120

6. TOURISM AND ANTIQUITIES

Jordan is endowed with a tourist wealth noted for its historical, climatic and natural characteristics which are capable of attracting visitors and tourists from all over the world. Properly developed places of interest can become a source of enjoyment and recreation for citizens and tourists and a prime factor in reactivating tourism in jordan. The Government has demonstrated its interest in the Tourism and Antiquities sector by constructing the basic infrastructure and supporting services. It has also launched promotional campaigns aiming at acquainting foreigners with Jordan's tourist potential and attracting visitors to the country.

As a result of these accomplishments, the tourism sector has grown rapidly. The number of tourists increased from 387,000 in 1964 to 617,000 in 1966, which resulted in an increase in income from tourism from JD 8 million to JD 11.3 million over the same period. It is worth noting that income from tourism in 1966 exceeded that from commodity exports, which reached only JD 10.4 million in that year.

The occupation of the West Bank in June 1967 and its aftermath led to a sharp drop in tourist activity. The recession was marked by a continuous decline in the number of tourists and subsequently in tourism receipts. In 1971, for example, the number of tourists was 257,000 and tourism receipts were only JD 3.1 million.

In view of the important role of tourism in the economy and its contribution towards increasing foreign exchange earnings, the Government has taken measures to diversify tourist activities and develop tourist sites in the East Bank. To help implement these measures, the Government undertook studies aiming at the integrated development of tourist sites, such as the Aqaba coast, Petra, Jerash and others. In 1971, the construction of the Aqaba Airport was completed. Furthermore, the Government established a Hotel and Rest House Corporation to provide the proper facilities and services in Government-owned hotels and rest houses. Incentives for encouraging the private sector to invest in tourism have been adopted.

Despite these efforts, the tourist potential, especially in the East Bank, is still almost untapped and the need for its development is apparent in order to increase tourist traffic, realize an increase in the national income and improve the balance of payments.

A. TOURISM

1. Characteristics and Problems

a. Decrease in the number of tourists and visitors from abroad and in income from tourism, which has led to an increasing deficit in the travel item of the balance of payments. This deficit, amounting to JD 4.6 million in 1971, is a direct outcome of the 1967 War and its aftermath.

b. Unbalanced development of tourist sites in the country, which has relied mainly on the Holy Places as the main attraction for visitors.

c. Concentration of most of the tourist facilities and services in the West Bank (the proportion of hotels there being 82% of the total). As a result of the occupation of the West Bank, the East Bank was left with few hotel facilities.

d. Increasing out-flow of Jordanian tourists, and the failure of tourist and archaeological attractions at home to check this increasing trend by offering a suitable alternative.

e. Lack of coordination between the various tourism and information agencies of the private and public sectors.

f. Insufficient technical and financial facilities at the disposal of the Ministry of Tourism and Antiquities and private agencies involved in tourism. This situation has limited the possibility of developing tourist sites and the launching of promotional and publicity campaigns. In addition, there is a shortage of qualified tourist guides and personnel.

2. Goals

a. Activating domestic and international tourism in order to increase tourist traffic and prolong the stay of tourists, by creating incentives which will serve to attract foreign tourists and check the flow of Jordanian visitors abroad. Specifically, the aim is to realize an increase in tourism receipts in excess of the increase in tourism payments as shown below. (Tourism payments include educational and medical care expenses abroad).

(in JD 000's)

	Receipts	Payments	Balance
1967	6,800	5,300	+ 1,500
1971	3,100	8,100	—5,000
1972	4,000	8,000	—4,000
1973	5,000	8,800	—3,800
1974	7,000	9,000	—2,000
1975	10,000	9,000	+ 1,000

b. Developing the tourist potential in the East Bank and diversifying tourist activities.

c. Encouraging the private sector to develop and diversify tourist facilities, services and industries in order to enable Jordan to accommodate more tourists and benefit from greater tourist expenditures.

3. Organizational and Policy Measures

a. Promoting Jordan's tourist and archaeological heritage in existing and new tourist markets, through publicity tours, folders, brochures, posters and the production of souvenirs, pictures and films about tourist and archaeological sites. Therefore, it is imperative that the activities of the Ministry of Tourism and Antiquities, the Ministry of Culture and Information, the Ministry of Foreign Affairs, ALIA - The Royal Jordanian Airlines and tourism and travel agencies be coordinated in order to formulate a comprehensive programme of advertisement and publicity abroad, especially for the Aqaba Coast. Group tours should be organized either directly by specialized local agencies or in cooperation with similar bodies in neighbouring Arab countries. It is proposed to allocate in the recurring expenditure of the Government Budget JD 300,000 for this purpose.

b. Relaxing frontier formalities and customs regulations for visitors and carefully selecting the staff working at the entry points.

c. Encouraging domestic tourism by carrying out promotional campaigns, organizing group trips for students and youth, providing proper transportation facilities and supplying tourist sites with the necessary utilities and services.

d. Organizing special events and festivals to prolong the stay of tourists and promote domestic tourism. Such events may include sound and light at historical sites like Amman, Petra and Jerash, cultural, artistic and sports events, together with recreational programmes.

e. Holding training courses to raise the performance standards of tourist guides and police.

f. Completing the staffing of the Hotel and Rest House Corporation.

g. Raising the performance standards of those working in hotels, rest houses and other tourist services.

h. Providing the necessary facilities to hold international conventions in Jordan.

4. Projects

a. Tourist Facilities in Amman

Amman is still in need of more tourist services besides improving and diversifying existing ones, in order to lengthen the stay of foreign visitors in the Kingdom and to give them a better impression of the country's tourist potential.

Due to the shortage of existing hotel facilities in terms of quality and quantity, and in order to meet international tourist standards it is proposed that a 350 room hotel be constructed, together with necessary convention facilities. Cost estimates of such a hotel amount to JD 1.6 million, half of which would be financed by a foreign investment firm and the other half by the Jordan Hotel and Rest House Corporation from foreign loans. Expenses are to be distributed over the years of the Plan as follows :

(In JD 000's)

	1973	1974	1975	Total
Foreign contribution	300	300	200	800
Foreign loans to the Hotel Corporation	300	300	200	800
Total	600	600	400	1,600

b. Developing Petra

A study for developing Petra as a historical national park was completed in 1968. The American planning team which conducted the study presented a master plan for the development of the area and confirmed the economic feasibility of the project. Works carried out included the construction of a visitors' centre and fourteen bungalows which were added to the rest house, the expansion of the parking lot, and the extension of the road to the visitors' centre. It has been decided to pursue development works during the period of the Plan by constructing a new 100 - room hotel. Costs are estimated at JD 200,000. A foreign investment firm is to finance half of the costs and the Jordanian Hotel and Rest House Corporation the other half from foreign loans guaranteed by the Government. Expenses are to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign contribution	35	35	30	100
Foreign loans to the Hotel Corporation	35	35	30	100
Total	70	70	60	200

c. Developing the Aqaba Coast

Towards the end of 1966, the Government entered into an agreement with Doxiadis Associates for conducting a study for developing the Aqaba coast. In 1968, Doxiadis submitted a report covering the whole Aqaba Area, including design of the required infrastructural projects and necessary facilities. The report recommended that the project be implemented in three stages of eight years each, and estimated the costs at JD 21.5 million.

A special committee representing the Ministries and establishments concerned prepared a report in which it recommended the implementation of the first stage, estimated at about JD 1 million. The committee had to make some adjustments on the Doxiadis report in light of conditions which prevailed after the 1967 War. On the other hand, the Hotel and Rest House Corporation proposed to start developing the hotel area in Aqaba where the basic infrastructure such as roads, water and electricity were already available. The Corporation advised that preparation for infrastructure in the southern coast of Aqaba be started in order to get it developed in the second stage. The construction of the main road connecting Aqaba with Durra (near the Saudi border along that coast) has already commenced.

This project will cover the following steps over the Plan period:

1. Preparation of a master plan of the Aqaba Hotel area.
2. Construction of additional buildings and utilities to increase the existing capacity of Aqaba hotels from 230 to 500 beds by building a tourist hotel of 200 rooms, whose cost is estimated at JD 1 million. A foreign hotel company will finance half of the costs and the Jordan Hotel and Rest House Corporation the other half from foreign loans.
3. Providing diving and water-skiing units and other necessary sport equipment at a cost of JD 30,000 and financed by the Royal Water-Skiing Club or any other private concern.

The total costs of these projects amount to JD 1.1 million, distributed as follows:

(in JD 000s')

	1973	1974	1975	Total
Foreign contribution and foreign loans to the Hotel Corporation	350	350	370	1,070
Private Sector	10	10	10	30
Total	360	360	380	1,100

d. Developing the Dead Sea Shores and Dams Areas in the Jordan Valley

This project aims at the development of tourist facilities along the Dead Sea Shores and the areas around the side wadi dams. Development of the Suweimeh area on the Dead Sea includes construction of a 100 room hotel estimated at JD 530,000. A foreign hotel company will finance half of the costs and the Jordan Hotel and Rest House Corporation the other half from foreign loans. The project also includes building a road leading to the site, branching off the Amman-Jerusalem highway, as well as supplying drinking water and building other basic facilities, the cost of which is estimated at JD 30,000. This brings the total costs (excluding construction of the road) to JD 560,000 distributed as follows:

(in JD 000's)

	1973	1974	1975	Total
Government Budget	15	10	5	30
Foreign contribution	120	120	25	265
Foreign loans to the Hotel Corporation	120	120	25	265
Total	255	250	55	560

e. Developing the Dibbin National Park

This project aims at the development of tourist services in the Dibbin National Park. Most of the first stage and part of the second stage of the project have already been implemented. This included the levelling of the road leading to the Dibbin area, constructing bungalows, a restaurant, a buffet, toilet units, parking lots and pedestrian walks. It also included power and water supply, sewage and other facilities. Costs are estimated at JD 100,000 distributed as follows:

(in JD 000's)

	1973	1974	1975	Total
Government Budget	50	50	—	100

f. Developing Jerash

This project aims at the development of tourist services in this archaeological site by constructing a visitors' centre, offices for the Ministry of Tourism and Antiquities staff and parking lots. It also includes the development of Al-Berkatein area. Costs of this project are estimated at JD 40,000 distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	15	15	10	40

g. Developing Al-Azraq Area

The Ministry of Tourism and Antiquities has conducted a study on developing Al-Azraq area as a national Park. The Ministry appropriated an area on which tourist utilities and facilities are to be constructed. The project includes the construction of a motel, a swimming pool and a snack bar. This project also includes an asphalted road, a parking lot, planting trees, supplying the area with electricity and camping grounds.

Costs of this project are estimated at JD 120,000 distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	40	40	40	120

h. Developing and Utilizing the Ma'in and Zara Hot Springs

This project aims at appointing consultants to carry out the necessary studies on formulating a master plan for the development of the Zara site and Ma'in Springs, in order to implement the project thereafter.

Costs of the study and of implementing some parts of the project are estimated at JD 115,000, distributed over the plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign loans and Aid	15	40	60	115

i. Hotel Training Centre

This project aims at establishing a hotel training centre for training persons engaged in tourist services and hotel management, taking into account the utilization of available facilities.

The cost, esstimated at JD 150,000, will be financed from foreign aid and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Aid	60	60	30	150

j. Private Tourist Investments

The private sector investments in tourist facilities are expected to reach JD 2.8 million during the Plan period and to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Private Sector investments	800	1000	1000	2800

SUMMARY OF TOURISM PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Tourist facilities in Amman	600	600	400	1,600
2.	Development of Petra Site	70	70	60	200
3.	Development of Aqaba Coast	360	360	380	1,100
4.	Development of Dead Sea Shores & Dam Areas in Ghor	255	250	55	560
5.	Development of Dibbin National Park	50	50	—	100
6.	Development of Jerash Site	15	15	10	40
7.	Development of Azraq Area	40	40	40	120
8.	Development Study of Ma'in and Zara hot Springs; implementation of some of the stages	15	40	60	115
9.	Hotel management training centre	60	60	30	150
10.	Private sector investment	800	1,000	1,000	2,800
	Total	2,265	2,485	2,035	6,785

B. ANTIQUITIES

Rich archaeological sites dating back to various ancient civilizations are scattered throughout Jordan. In addition to their tourist value, they represent a cultural heritage which must be preserved, adequately maintained, and excavated wherever necessary. Additional museum facilities should also be provided.

1. Organizational and Policy Measures

a. Forming a Higher Council of Antiquities, which will formulate general policy with regard to antiquities and oversee its implementation, including the setting up of plans for preservation, maintenance and excavation of antiquities, as well as disposition rights.

b. Strengthening the technical staff at the Department of Antiquities, and providing appropriate training courses.

c. Cooperating with the Department of Archaeology at the University of Jordan for the purpose of undertaking archaeological excavations and research in various parts of the Kingdom.

d. Inviting experts in the fields of recording of antiquities, preservation of drawings and mosaics.

e. Acquisition of archaeological sites for the purpose of preserving and safeguarding them from obliteration. The costs of such acquisitions are estimated at JD 90,000 over the Plan years and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Recurring Budget	30	30	30	90

2. Projects :

a. Restoration and Preservation Projects

These projects aim at maintaining and preserving archaeological sites in Amman, Jerash, Ajloun, Um El-Jimal, Um Qeis, Um El-Rusas, the desert Castles, Kerak, Petra, and others. The costs of these projects are estimated at JD 185,000 over the Plan years distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	50	60	75	185

b. Machinery and Equipment

In order to carry out restoration and maintenance projects, the necessary equipment for this purpose must be acquired. Thus a 10-15 ton crane, a bulldozer and other equipment are needed. The costs of this machinery are estimated at JD 50,000 distributed over the Plan years as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	20	15	15	50

c. Accidental Archaeological Excavations

Due to the widespread expansion of construction throughout the Kingdom, many accidental discoveries are made. Scientific excavations must be carried out by the Department of Antiquities at such sites. The costs of these excavations are estimated at JD 15,000 distributed over the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	5	5	5	15

d. Museums

1. The Folklore Museum

This project aims at supplying the Folklore Museum with the necessary equipment and generally developing the Museum in order that it may take its proper place among the archaeological and tourist landmarks of the country. The costs of this project are estimated at JD 60,000 distributed over the Plan years as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	10	20	30	60

2. The National Museum

This project comprises the undertaking of studies for the establishment of a National museum at an appropriate location. Costs of the first phase of this project including the necessary studies and plans, determining the location and starting on construction are estimated at JD 200,000 of which JD 50,000 will be spent during the Plan as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	—	—	50	50

3. Equipment for Museums

Most local museums in the Kingdom are in need of new display cabinets and other equipment. A chemical laboratory for restoration work is also needed. Costs are estimated at JD 25,000 distributed over the Plan years as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	15	10	—	25

SUMMARY OF ANTIQUITIES PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Restoration and Preservation Projects	50	60	75	185
2.	Machinery and Equipment	20	15	15	50
3.	Accidental Archaeological Excavations	5	5	5	15
4.	Museums :				
a.	Folklore Museum	10	20	30	60
b.	National Museum in Amman	—	—	50	50
c.	Equipment for Museums	15	10	—	25
	Total	100	110	175	385

SUMMARY OF TOURISM AND ANTIQUITIES PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Tourism Projects	2,265	2,485	2,035	6,785
2.	Antiquities Projects	100	110	175	385
	Total	2,365	2,595	2,210	7,170

7. ELECTRICITY

The Jordan Government paid considerable attention to developing the electricity power supply industry owing to its direct bearing on the development of the economic sector and on raising the standard of living. The existing electricity undertakings have developed a number of projects in Amman, Jerusalem, Irbid, Nablus and Hebron, which aimed at creating regional centres for generating and distributing electric power.

The installed generating capacity within the concession areas of the Amman and Irbid Electricity Companies rose from 17.5 MW in 1965 to more than 40.0 MW in 1971. Income derived from the water and electricity sectors increased from JD 1.4 *million in 1965 to* JD 2.4 million in 1971 (71%).

During the last decade, a number of technical and economic studies were conducted for developing the electricity supply industry in the concession areas of the existing electricity companies and on the feasibility of integrating them into one national scheme. The findings of these studies have confirmed the feasibility of integrating generation and transmission into a national scheme covering the northern regions of the Kingdom. This scheme involves the erection of an 88-MW central thermal steam station at Zerka, a 30 MW hydroelectric generating station at North Shuna, and a grid system linking Zerka with Amman, Jerusalem, Nablus and Irbid. It was scheduled to commence the implementation of this scheme in mid-1967, but the occupation of the West Bank stood in the way and necessitated its modification as to cover the northern regions of the East Bank. Related feasibility and technical studies were started in 1968 and completed in 1971.

The Jordan Electricity Authority (JEA) was established at the beginning of 1967 to undertake the implementation and management of the overall scheme for the electrification of Jordan. The Authority carried out stage I of the Irbid electrification project and established the concrete-pole plant to produce poles needed for transmission and distribution networks. Presently, the JEA is supervising the implementation of the expansion project of the Jordan Electricity Company and stages II and III of the Irbid electrification project, within the framework of the Jordan electrification scheme.

The southern regions of the Kingdom are not covered by the overall electrification scheme ; electricity projects relating to them are implemented under the supervision of the Ministry of Municipal and Rural Affairs.

2. Characteristics and Problems

a. Lack of electricity supply in many villages.

b. The growth in electricity power supply falls short of meeting the rising demand of the various economic sectors.

c. The existence of non-economical small diesel generating stations, which supply power to some industrial projects and municipalities.

d. High costs of generation, attributable to primary dependence on relatively small diesel units and to high prices of fuel.

3. Goals

The Goals may be stated as follows :

Improving, developing, generating, transmitting, distributing and selling electric power to various parts of the Kingdom, in order to provide electricity for industrial, agricultural, commercial and household uses in abundant supplies and at minimum costs.

4. Organizational and Policy Measures

a. Adopting a policy based on integration and centralization of electricity generation with the purpose of reducing production costs. Accordingly, it is necessary to close down, wherever possible, small uneconomical power stations located within the areas covered by the Jordan electrification scheme, and to limit the erection of power stations for some industrial and developmental enterprises or the expansion of the existing power stations, to the sole purpose of providing stand-by power.

b. Conducting detailed studies for the purpose of working out tariff charges proportionate with the size and type of electricity consumption and on a preferential basis with regard to production sectors, particularly industry and agriculture.

c. Increase reliance on the already established concrete pole-plant for providing poles used in transmission and distribution networks and telecommunications networks. Necessary steps will be taken in 1972 to diversify the production of the plant to enable it to meet the domestic demand for concrete poles.

d. Provide training opportunities at home and abroad for the technical and administrative staff engaged in electricity undertakings, in order to improve their efficiency and performance.

5. Projects

a. Jordan Electrification Scheme

This project aims at the implementation of stage I of the Jordan Electrification Scheme, which includes the erection of a 66-MW central thermal steam power station near the Jordan Oil Refinery at Zerka and erecting a 40 Kilometer 132-KV high voltage transmission line connecting Amman with Zerka.

The Kuljian Corporation of Philadelphia is preparing the engineering designs and tender documents of the central station and other related components. The British Consultants Preece, Cardew and Rider have updated studies concerning the national grid linking Zerka with Amman and Zerka with Irbid.

It is necessary to speed up the construction of the central steam station to be commissioned before the end of 1975, owing to the recent large increase in damand for electricity and to the expected rapid growth in demand due to both natural expansion and additional demand growing out of new projects under the three-year Plan.

Moreover, the generating capacity of the Jordan Electricity Power Company will not be able to meet demand after 1974. The Irbid area, however, will be linked with the central station by a high voltage transmission line (132 KV) after 1975.

The World Bank and the Kuwaiti Fund for Arab Economic Development are expected to extend loans necessary to finance the foreign costs of the central station, estimated at JD 5 million, where as the British Government is expected to extend a loan for financing the grid system linking Zerka with Amman, amounting to JD 1.24 million.

The total cost of this project is estimated at JD 6.715 million, of which JD 5.7 million will be spent during the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
a. Central Steam Station:				
World Bank and Kuwaiti Fund Loans	450	1900	1400	3750
Government budget	125	155	300	580
b. Grid system (Zerka/Amman):				
British Loan	100	400	740	1240
Government budget	25	45	60	130
Total	700	2000	3000	5700

b. Amman Area Electricity Expansion Project

This project aims at expanding electricity generation capacity of the Jordan Electricity Power Company (JEPCO) to meet demand in the Amman service area pending the construction of the central thermal steam station. It also aims at extending the transmission and distribution networks within the areas presently included in the Amman service area and the areas that will be added thereto. The project comprises the following :

1. Expanding Marka diesel power station by installing three diesel generating units of 6.2 MW each.
2. Reinforcing and improving the distribution system within the Amman area through installing underground control devices and other electrical equipment in order total length of 132 KM., and installing transformers, cables and overhead lines of 6.6 KV and 33 KV, of a to reinforce and improve the existing and proposed sub-stations.
3. Extending and reinforcing the internal 230/400 volt distribution networks and installing new ones.

An agreement has been concluded with the British Government whereby a loan of JD 3.1 million will be extended as a contribution toward the cost of expanding JEPCO's electricity generation capacity and transmission network. JEPCO will bear the remaining expenses including the cost of distribution network. The project was initiated in 1971. The purchase and construction of the generating units are expected to be completed in 1974, whereas the improvement and extension of the distribution network are expected to be concluded in 1967.

The total cost of the project is estimated at JD 4.46 million, of which JD 1.504 million are expected to be spent by the end of 1972. The remaining JD 2.956 million wil be spent during the period of the Plan as follows :

(in JD 000's)

	1973	1974	1975	Total
Generation, distribution and transmission networks :				
British Loan	675	698	758	2131
JEPCO's contribution	275	275	275	825
Total	950	973	1,033	2956

c. Irbid Area Expansion Project

This project aims at expanding electricity generation capacity of the Irbid Electricity Power Company (IEPCO) and extending its transmission and distribution networks. It includes the following :

1. Installing three additional diesel units of 2.5-MW each.
2. Erecting 260 Km. of 33 KV transmission lines and related sub-stations.

3. Erecting distribution networks to serve 32 villages in IEPCO's service area including the northern and middle areas of the Jordan Valley.

The total cost of the project is estimated at JD 1.5 million, of which JD 1.2 million are expected to be financed from the British loan, and the remainder from IEPCO's resources and from the Municipal and Village Loan Fund. The project has been intiated in 1972. It is expected that JD 375,000 will be spent during 1972, out of which JD 75,000 will be from the IEPCO's resources and the remainder from the British loan.

The amounts to be spent over the Plan period are estimated at JD 1.125 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Generation, Transmission and Distribution networks :				
British Loan	350	400	150	900
Contribution of Irbid Electricity Co. and Municipal & Village Loan Fund	50	75	100	225
Total	400	475	250	1,125

d. Electrification Projects in the Southern Regions of the Kingdom.

The electrification projects in the southern regions of the Kingdom will be improved, expanded and reinforced by the municipal and village councils concerned under the auspices of the Ministry of Municipal and Rural Affairs and financed from loans to be provided by the Municipal and Village Loan

Fund. The Aqaba electricity system will be also expanded and improved.

Negotiations are now under-way between Karak Municipality, the Ministry of Municipal and Rural Affairs and the Ministry of National Economy for setting up regulations to establish a limited company in which municipal and rural councils of towns and villages surrounding the town of Karak will participate. The company will generate, transmit and distribute electric power.

SUMMARY OF ELECTRIFICATION PROJECTS

(in JD 000's)

	1973	1974	1975	Total
1. Jordan Electrification Scheme	700	2000	3000	5700
2. JEPCO's Expansion Project	950	973	1033	2956
3. IEPCO's Expansion Project	400	475	250	1125
Total	2050	3448	4283	9781

8. TRANSPORTATION

The transportation sector is considered as one of the main sectors with a direct influence on economic activity. It serves productivity, internal and foreign trade, transit trade, tourism and the social development of various regions of the Kingdom. Many accomplishments have been achieved in the field of transportation, among which are the construction of new roads, the improvement of existing ones, the expansion of the Port of Aqaba and the supply to the Royal Jordanian Airlines (ALIA) with modern aircraft serving routes linking Jordan with a number of Arab, Asian and European countries. A number of technical and economic feasibility studies relating to some transportation projects have been conducted. Among these is the Hittiyeh-Aqaba railway, which will be used mainly for transporting phosphates to Aqaba Port and will result in reduced phosphate transportation costs. This, in turn, will increase Jordan's competitiveness in foreign markets. The railway will also be utilized in transporting goods exported and imported via Aqaba.

The Ministry of Transport is presently conducting a study aimed at organizing road transportation. The purpose of this study is to survey truck movements on the Amman-Aqaba road with regard to truckloads, revenue, costs, and average transport prices (ton per kilometer). The results of this study will be utilized in organizing road transportation from the economic, technical and administrative aspects.

As a result of the execution of these projects, the contribution of the transportation sector to the national income increases from JD 12 million in 1964 to JD 16.2 million in 1971, i.e. by about 35%.

The transportation sector includes roads, railways, the Port of Aqaba, civil aviation (including ALIA Airlines) and the meteorological services.

A. ROADS

1. The present road network covers 7,080 Km, of which 5,635 Km are asphalted. It comprises the following categories :

	Total length Km.	Asphalted Km.	Non-asphalted Km.
Main Roads	2070	1700	370
Secondary Roads	1890	·1455	435
Rural and Tourism Roads	3120	2480	640
Total	7080	5635	1445

During the period 1964-1970, a length of 3,410 Km of asphalted roads was constructed at a total cost of JD 13.6 million as compared with JD 10.4 million allocated for road construction in the Seven Year Programme.

2. Characteristics and Problems

a. The lack of a general master plan for roads outlining construction priorities of roads in accordance with their economic and social benefits. This has resulted in the construction of non-priority roads, with no pre-determined evaluation of need or coordination with the general network.

b. Duplication of responsibility concerning the construction and maintenance of roads. However, this situation was corrected in 1971 by designating the Ministry of Public Works as the sole authority responsible for road construction and maintenance.

c. Stoppage of work on some important road projects near the cease-fire line as a result of the June 1967 War in addition to the consequent increase in construction costs.

d. Allocation of insufficient funds for road maintenance. This has affected traffic safety and increased the cost of reconstruction later.

3. Goals

a. Providing a road network capable of meeting the various needs of production, import, export, tourism, etc. according to an implementation programme and in line with a priority plan.

b. Expanding the rural roads network to promote the social and economic development in the rural communities.

c. Completing the regional and international roads network to which the Kingdom is already committed, in order to provide adequate international transportation facilities.

d. Improvement and maintenance of the present roads network.

4. Organizational and Policy Measures

a. Updating the Law for the control and protection of roads in order to meet the real needs of road construction, maintenance, supervision and protection.

b. Preparing a master plan for the roads network and conducting the necessary studies in order to establish priorities for the construction and improvement of roads according to their social and economic benefits and preparing a time-schedule for the implementation of these roads.

c. Conducting studies aiming at analyzing the methods and techniques of road construction and maintenance (including asphalt mixes) in order to determine the best ones with regard to quality and economy. Such studies should take into consideration the physical and geographical characteristics of the various locations of the Kingdom.

d. Allocating the necessary funds for road maintenance. Such funds, estimated at JD 400,000 annually, should be included in the recurring general expenditures of the annual budget.

5. Projects

a. Amman-Zerka Highway

Traffic density on the Amman-Zerka road has called for conducting a study to determine how to facilitate present traffic and its future growth. The study, undertaken by De Leuw Cather International Inc. in association with Jouzy and Partners, has indicated the need for a four-lane highway initially to be developed later into six lanes. The length of this highway is 19 Km. Consequently, a loan agreement was concluded with the International Development Association (IDA) in the amount of $ 6.0 million to finance the costs of constructing this highway, purchasing road maintenance equipment and conducting a land-use study for road area falling within the Amman Municipality boundaries.

The execution of the project started in 1971. The total cost of this project is estimated at JD 3.4 million, including the Government contribution. This figure includes actual construction costs, compensation for expropriation of property, realignment of the highway in Ruseifa, construction supervision expenses, etc. During the years of the Plan the sum of JD 2.09 million will be spent as follows:

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	845	195	—	1040
General Budget	600	450	—	1050
Total	1445	645	—	2090

b. Amman Ring Road

This project aims at encircling Amman with a road for speedy traffic, with the purpose of facilitating traffic movement in general and reducing downtown traffic. The project comprises :

1. The section lying between Um-El-Hiran on the south and Schneller School on the east. The construction of this part aims at easing heavy downtown traffic by diverting trucks to this new 18 Km. road. The cost of this section is estimated at JD 450,000. The Ministry of Public Works initiated this project in 1972 and its completion is expected during 1973.
2. The section located between Schneller School and Ein-Gazal is currently under construction as part of the Amman-Zerka Highway Project listed as Project above).
3. The section located between Ein-Gazal on the east and the Hussein Sports City Circle on the west. Engineering studies of this section have been completed.Construction of these 8 Km. will be implemented after 1975.
4. The part located between the Hussein Sports City Circle and Um-El-Hiran, passing through Jabal Amman and Abdoun and Nazzal areas. The length of this part is 11 Km., part of which falls within the Amman Municipality boundaries. Costs are estimated at JD 940,000. This part will be executed after 1975.

The cost of completing the Um-El-Hiran Schneller section is estimated at JD 150,000, to be spent in 1973 and financed from the general budget through an internal loan spent as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget (internal loan)	150	—	—	150

c. Aqaba-Durra (Saudi Border) Road

This road is an important part of the project for the development of Aqaba's southern coast. It will promote tourism and industrial enterprises there. Furthermore, this road forms a part of the regional roads network. The construction of this 21 Km. road was started at the beginning of 1972. The cost of executing this road is estimated at JD 1.1 million financed from the Government budget through an internal loan. The completion date of this project is 1973 and its cost during the Plan period is estimated at JD 400,000 distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget (internal loan)	400	—	—	400

d. Suwaima-Dead Sea Road

Due to the importance of the Dead Sea Coast area from a tourisitic point of view, particularly during the winter and spring seasons, there is a need for an asphalted road linking the Amman-Jerusalem Road with the Suwaima Dead Sea Coast. The Ministry of Public Works prepared the technical designs for this road and started its implementation in 1972. Costs, estimated at JD 75,000, will be financed from the government budget and spent during 1973.

(in JD 000's)

	1973	1974	1975	Total
Government Budget	75	—	—	75

e. North Shuna-South Shuna-Kafrain Road

This project aims at linking the various areas of the

Jordan Valley with the main roads network. The proposed road must be capable of absorbing the transportation of the agricultural products of those areas. In view of the importance of this 100 Km. road, a loan agreement was concluded with USAID in 1965 to finance the costs of improving and widening the section of this road linking North Shuna with Damya Junction with a length of 70 Km. Construction of this part was started in 1966 but was interrupted as a result of the 1967 War.

However, work was resumed when the War was over, but the Ministry of Public Works had to give up work again as a consequence of successive Israeli attacks on the area. As the existing road connecting North Shuna with South Shuna - the only available road in the area - is incapable of absorbing increased traffic resulting from the reactivation and development of the Ghor areas, it becomes imperative that construction of this road be resumed as soon as possible. Also there is an urgent need to improve and widen that part of the road connecting North Shuna with Damya Junction.

Costs of the project are estimated at JD 250,000 to be financed from the government budget and foreign assistance to be distributed as follows :

(In JD 000's)

	1973	1974	1975	Total
The Government Budget and Foreign Assistance	100	150	—	250

f. Amman-Suweileh Road

This project aims at developing the Amman-Suweileh Road to cope with increasing traffic between the two cities. This road is one of the most important entrances of Amman. It links the Jordanian capital with the Ghor area, the West Bank, the northern regions and the regional roads. The necessary detailed designs have been prepared by the Ministry of Public Works and the execution of this work is scheduled to start in mid 1972. Costs are estimated at JD 400,000 of which JD 150,000 have been allocated in the 1972 government budget. The remaining JD 250,000 will be spent in 1973 from the government budget.

(in JD 000's)

	1973	1974	1975	Total
Government Budget	250	—	—	250

g. The Syrian Border-Jerash-Amman-JordanValley - Jerusalem Road

A study has been carried out by the American consulting firm, Harris-Western, in association with the Jordanian consulting firm, ARABTECH, for this road to prepare plans for its improvement and development with a programme for work necessary to be carried out during the next five years, especially in the land slide areas in Jerash and Na'ur.

A sum of JD 50,000 has been allocated in the 1972 government budget to finance the improvement of this road. The expenditure during the Plan period is estimated at JD 150,000, financed from the government budget and foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Assistance	50	50	50	150

h. Improving Salt-South Shuna Road

This project aims at improving the road linking Salt with the central Ghor areas and the West Bank. Costs, estimated at JD 75,000, will be financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	25	25	25	75

i. Improving the Mafrak-H5 Road

This project aims at expanding and improving the regional and international roads network which links Jordan with neighbouring Arab countries. Costs are estimated at JD 750,000 of which JD 150,000 will be spent during the Plan period, financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	50	50	50	150

j. Improving the Ma'an - Wadi Mousa Road

This project aims at improving and widening the road linking Ma'an and the town of Wadi Mousa in view of the contribution this road is bound to make to tourist and agricultural activities. Costs, estimated at JD 200,000, will be financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	50	50	100	200

k. Safi-Aqaba Road

This road will link the Ghor Safi area with Aqaba with a length of road of 187 Km. It will facilitate the developing of the Southern Ghor areas and the exploitation and marketing of copper, manganese, potash and rock salt ores available in the area. The construction of this road was commenced in 1966. Before the stoppage of work as a consequence of the 1967 War and its aftermath, 35 Km. were asphalted at the Aqaba end and earthworks completed for another 40 Km.

However, due to the vital importance the Plan attaches to the development and exploitation of agricultural resources in the Southern Ghor areas and mineral ores in Wadi Araba and the Dead Sea, it is proposed that the implementation of this project be resumed from the Ghor Safi end provided that the Ministry of Public Works will execute the project with funds provided from the government budget, and foreign assistance.

Costs over the Plan period are estimated at JD 700,000 to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	—	100	—	100
Foreign Assistance	—	—	600	600
Total	—	100	600	700

1. Rihab-Zunniyeh-Hashimiyeh Road

This project aims at the construction of a road linking Hashimiyeh, near the Jordan Oil Refinery, with Rihab on the main road connecting Mafraq and Jerash. JD 150,000 will be spent over the Plan period, financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	—	50	100	150

m. Completion of Madaba-Ma'een-Ma'een Springs Road

The aim of constructing this road, whose total length is 37 Km., is to link Madaba with the Ma'een Mineral Springs. Sixteen kilometers of this road were constructed to the standard of rural roads but with an asphalted width of 4 meters. The remaining section, 21 Km. in length, is located in a mountainous area. The cost of constructing and asphalting this section is estimated at JD 250,000 of which JD 150,000 will be spent during the Plan period, to be financed from the government budget as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	—	50	100	150

n. Improvement of Thanieh Junction-Karak-Ghor Safi Triangle-Mazra'a Roads

1. Thanieh Junction-Karak Road.

This 5 Km road comprises a section of the 42 Km road that links the desert road near Katraneh with Karak. The section located between Katraneh and Thanieh Junction has been built according to the secondary road standards. The section located between Thanieh Junction and Karak was constructed according to rural roads standards. Thus it is suggested that this section be reconstructed in order to match the rest of the road. The cost of this work is estimated at JD 50,000 to be financed from the government budget.

2. Karak-Ghor Safi Triangle-Mazra'a Road

The length of this road is 30 Km, of which 17 Km. were constructed according to the secondary roads standards and 13 Km. according to rural roads standards; therefore it is proposed that its standard be raised. The cost of this work is estimated at JD 100,000 to be financed from the government budget. Thus the total cost is JD 150,000 to be financed from the government budget as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	50	50	50	150

o. Rural Roads

A number of roads are constructed each year to link up villages that have not been connected to the national roads network previously. In recent years a number of such roads have been constructed in cooperation with the World Food Programme.

This project aims at constructing and asphalting additional rural agriculture and desert roads, besides maintaining the existing ones. Consideration should be given to decentralizing the allocation of funds and execution of the work. Therefore, it is proposed that the agreement concluded with the World Food Programme for financing such roads be extended and new sources of foreign assistance be approached for the purpose of maintaining and expanding the agricultural roads network in the Jordan Valley and the Southern Ghor area.

Expenditure on this project over the plan period is estimated at JD 700,000 to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	100	100	100	300
World Food Programme and other Assistance	100	150	150	400
Total	200	250	250	700

p. Improving Main Roads

This project aims at improving the main roads network and surfacing some of them with an asphalt mix in order to maintain them and ensure traffic safety. It is suggested that JD 600,000 be allocated by the government budget for this project to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	200	200	200	600

q. Study and Preparation of a Master Plan for Roads in the Kingdom

The purpose of this project is the preparation of a master plan to determine the priorities for construction of roads according to their economic and social feasibility including a time schedule for its execution.

The cost of this study is estimated at JD 100,000 and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Aid	50	50	—	100

r. Studying the Suwaima Safi Road (Along Dead Sea Shore)

This project aims at conducting a detailed study for the construction of a road along the eastern coast of the Dead Sea linking Suwaima with Ghor Safi. The cost of this study is estimated at JD 250,000 of which JD 100,000 will be spent during the Plan period and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	—	—	100	100

s. Purchasing Road Maintenance Machinery and Equipment

This project aims at providing the Ministry of Public Works with machinery and equipment needed for road maintenance. Costs, estimated at JD 180,000, will be financed from the loan extended by IDA for the Amman-Zerka road. The sum of JD 60,000 will be spent in 1972, and the balance will be spent as follows :

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	120	—	—	120

SUMMARY OF ROAD PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Amman-Zerka Highway	1,445	645	—	2,090
2.	Amman Ring Road	150	—	—	150
3.	Aqaba-Durra Road	400	—	—	400
4.	Suwaima-Dead Sea Road	75	—	—	75
5.	North Shuna-South Shuna-Kafrain Road	100	150	—	250
6	Amman-Suweileh Road	250	—	—	250
7.	The Syrian Border-Amman Jerusalem Road	50	50	50	150
8.	Salt-South Shuna Road	25	25	25	75
9.	Mafrak-H5 Road	50	50	50	150
10.	Ma'an Wadi Mousa Road	50	50	100	200
11.	Safi-Aqaba Road	—	100	600	700
12.	Rihab-Zunniyeh-Hashimiyeh Road	—	50	100	150
13.	Completion of Madaba-Ma'een-Ma'een Springs Road	—	50	100	150
14.	Improvement of Thanieh Junction Karak-Ghor Safi Triangle-Mazra'ah Road	50	50	50	150
15.	Rural Roads	200	250	250	700
16.	Improving Main Roads	200	200	200	600
17.	Preparation of a Master Plan for Roads	50	50	—	100
18.	Studying Suwaima-Ghor Safi Road	—	—	100	100
19.	Road Maintenance Machinery and Equipment	120	—	—	120
	Total	3,215	1,720	1,625	6,560

B. RAILWAYS

Since 1964, some improvements to the existing railway network have been carried out. Also the earthworks and railroad bridges between Ma'an and Medina in Saudi Arabia with a length of 842 Km. have been completed. Tracks have been laid down on 150 Km of this length, of which 110 Km. are between Ma'an and Saudi Arabian borders. However, Aqaba has remained unlinked to the Jordan railway network.

During the past years, several studies were carried out to assess the technical and economic feasibility of a railway between Hittiyeh and Aqaba. These studies indicated that such a project will contribute to a reduction in the cost of transporting phosphate provided that the transported quantity is more than 1.075 million tons per year, and that 200,000 tons of imported goods are transported from Aqaba to the mainland. It is worth noting that the 1972 phosphate sale contracts to South East Asia, the Far East and East Africa amounted to one million tons, to be exported via Aqaba.

In compliance with the conditions of the German Loan Agreement for financing this project, the Aqaba Railway Corporation was established to supervise the execution of this project and to administer its operation afterwards.

The Ministry of Transport is presently studying the effect of this Railway Project on the trucking operations.

2. Goals

a. To connect the Port of Aqaba (at an economical cost) with the areas of production and consumption in the country.

b. To develop the northern part of the line which connects Jordan with neighbouring Arab countries.

c. To develop management and administration procedures so that the railway can carry on its duties with the least possible cost.

3. Organizational and Policy Measures

a. Completing the recruitment of the staff of the Aqaba Railway Corporation in order to implement the project within the approved scheduled period .

b. Setting up a single management for the Jordan Hedjaz Railway and the Hittiyeh Aqaba Railway with the object of reducing management and operation costs, yet maintaining for each of them its legal and financial status.

c. Starting the training of the technicians required for the operation and maintenance of the Hittiyeh Aqaba Railway.

4. Projects

a. Connecting Aqaba Port with the railway network and strengthening the line between El-Hassa and Ma'an

This project consists of two parts :

1. Connecting Aqaba Port with the railway network.

This project comprises the construction of a railway line between Hittiyeh and the Port of Aqaba and the supply of locomotives and wagons and the loading and unloading equipment for phosphate handling at El-Hasa mines and Aqaba Port. This line will transport phosphates for export and for processing, as well as other imported, exported or in-transit goods. After the completion of the necessary studies and the approval of the project, a loan agreement was signed and a tender was awarded on March 21, 1972 for the construction of the railway between Aqaba and Hittiyeh. The order to commence was issued on June 1,1972. The cost of this part of the project is estimated at JD 15 million.

2. Strengthening the line between El-Hassa and Ma'an

It comprises the strengthening of the Hedjaz Railway Line between El-Hasa and Ma'an to match the axle load of the Hittiyeh-Aqaba Line. The designs and specifications of this project have been prepared and it is expected that this project will be completed at the same time as the Hittiyeh-Aqaba Line.

The total cost is estimated at JD 2.5 million. Thus the total cost of the project is estimated at JD 17.5 million.

An agreement was concluded between the Jordan Government and the Federal Republic of Germany according to which Kreditanstalt fur Wiederaufbau of Frankfurt will extend to Jordan for this project a loan of 133.965 million Deutsche Marks (equivalent to JD 16 million).

The distribution of the total costs of the project during the period of the Plan will be as follows :

(in JD 000's)

	1973	1974	1975	Total
Funds from the German Loan	5,750	4,750	2,500	13,000
Funds from Jordan Government Budget	750	1,750	—	2,500
Total	6,500	6,500	2,500	15,500

SUMMARY OF COSTS OF RAILWAY PROJECTS

(in JD 000's)

	1973	1974	1975	Total
Connecting the Port of Aqaba with the railway network and strengthening the line between Hasa and Ma'an	6,500	6,500	2,500	15,500
Total	6,500	6,500	2,500	15,500

C. PORT OF AQABA

Numerous improvements to the Port of Aqaba have taken place in recent years. Among these was the construction of a new berth for phosphate loading capable of accomodating ships of 100,000 ton capacity, the construction of two new phosphate warehouses, each of 72,000 ton capacity if one type of phosphate is stored, or 60,000 tons, if two types are stored, and the installation of modern loading, air-cleaning and dust-sucking equipment. These improvements have increased the Port's capacity of phosphate export to 2 million tons per year.

In 1972, agreements were concluded for the expansion of the Electrical Power Station through the installation of two diesel generating units of 1 MW each.

2. Characteristics and Problems

a. The available equipment is inadequate for meeting the demands in the fields of pilotage, anchorage, dredging and the handling of goods.

b. The sea-water is polluted by the oils and debris disposed of by ships anchoring in the bay of Aqaba.

c. The handling of bulk grain is costly, owing to lack of bulk storage facilities, and its dependence on manual handling which is time consuming.

d. There is a multiplicity of responsibilities and functions in the Port Department. These include the provision of electrical power, water, and fire-fighting services to the Town of Aqaba, as well as to the Port itself.

e. Several official bodies are responsible for the development of the Aqaba region.

3. Goals

a. To improve the handling facilities of the Port in general, and of bulk grain handling and storage in particular.

b. To provide all the facilities required for pilotage, anchorage, and the repair of ships, which do not require a dry dock.

c. To increase the capacity of the electric power and to regulate it so as to achieve a reduction in costs.

d. To provide wireless communications which will facilitate and improve navigational services.

4. Organizational and Policy Measures

a. To modernize the organization of the Port administration, its regulations and procedures, and to develop its technical departments by providing them with qualified and skilled personnel. Also, to improve the standard of Port personnel through training courses and scholarships, especially in the maintenance of installations and equipment.

b. To study the possibility of relieving the Port of the responsibility of providing the Town of Aqaba with some of the services that the Port is now rendering.

c. To conduct an economic and financial cost study to determine a tariff for services to ships by the Port, taking into consideration the capital costs incurred in developing the Port, cost of operation and maintenance, and the kind and quality of these services.

d. To study the economic feasibility of establishing a Jordanian Maritime Company, a Maritime Training College, and the registration of ships under the Jordanian flag.

5. Projects

a. Developing and improving the Port services by updating the master plan that will provide for expected Port development during the next ten years. This will include :

1. The preparation of a feasibility study for the construction of a third berth and warehouses to meet the increase in Port activities.

2. The preparation of a feasibility study for the construction of bulk grain silos with a minimum capacity of 30,000 tons and equipped with mechanical loading and unloading facilities

3. The provision of the required facilities for the refuelling of ships.

It is suggested that the above-mentioned study for updating the master plan be conducted in 1973. The primary cost of this study is estimated at JD 40,000 to be financed from German loans and assistance, allocated as follows :

(in JD 000's)

	1973	1974	1975	Total
German Loans and Assistance	40	—	—	40

b. Undertaking a study for the construction of a central electric power station for the Town of Aqaba (outside the Port area) which will regularly supply electric power to the town and cater for its requirements and those of the Port, the Airport, the Southern Coast and the potential industries in the Aqaba area.

The cost of this study is estimated at JD 20,000 distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
German Loans	10	10	—	20

c. The purchase of mechanical loading and unloading and fire-fighting equipment, at an estimated cost of JD 200,000 to be financed from a German loan, German technical assistance, and from the Port Department, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
German Loan	120	—	—	120
German technical assistance	60	—	—	60
Government Budget	20	—	—	20
Total	200	—	—	200

d. The purchase of a 1 MW electrical generating unit to be installed by the end of 1973. This will be in addition to the two units which will be installed at the end of 1972, in order to meet the requirements of the Port and Town of Aqaba till the end of 1975.

The cost of this unit is estimated at JD 130,000, to be financed from a German loan and the government budget. distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
German Loan	120	—	—	120
Government Budget	10	—	—	10
Total	130	—	—	130

SUMMARY OF PORT OF AQABA PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Study of modernizing and updating the Master Plan for the development of services in the Port	40	—	—	40
2.	Study of constructing a central electric power station in Aqaba	10	10	—	20
3.	Purchase of loading, unloading and fire-fighting equipment	200	—	—	200
4.	Purchase of 1 MW electrical generating unit	130	—	—	130
	Total	380	10	—	390

D. CIVIL AVIATION

A number of civil aviation projects have been undertaken in recent years such as starting the expansion of the buildings of Jerusalem Airport and the lengthening and improvement of its runway, maintaining the Amman Airport runway, widening its taxiway, installing new lighting equipment and enlarging its departure and arrival lounges and the construction of Aqaba Airport.

2. Characteristics and Problems

a. Difficulty in providing the Civil Aviation Department with qualified specialists and technicians.

b. Lack of technical equipment and instruments necessary for ensuring a high standard of air safety.

3. Organizational and Policy Measures

a. Completing the establishment of the Amman Flight Information Region to enable Jordan to have control over its airspace.

b. Develop relations between Jordan Civil Aviation Department and the international civil aviation organizations and the civil aviation authorities of other countries, in order to extend the Royal Jordanian Airlines (ALIA) network to new routes, in addition to attracting commercial air traffic to Jordanian airports.

c. Improving the technical and administrative training procedures in order to provide more efficient personnel for the operation of airports.

d. Promoting transportation of air freight by the national airlines.

4. Projects

a. Improving the Present Amman Airport

This Project aims at improving the present Amman Airport in order to enable it meet the needs of growing air traffic pending the completion of the new Amman International Airport. Proposed improvements include construction of hangar, extension of the apron, construction of the transit lounge and restaurant, expansion of the departure lounge, building offices for airline companies and completing the requirements of the Amman Flight Information Region. Costs,estimated at JD 440,000, will be financed from the allocations of the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	140	150	150	440

b. Completion of Aqaba Airport

Aqaba Airport, with a runway length of 3,000 meters, was completed in 1972.The airport is capable of receiving long-range aircraft during daylight only. This project includes the completion of the civilworks, purchasing fire-fighting engines and equipping the airport with navigational and lighting aids needed to permit day and night operation. Costs, estimated at JD 255,000, will be financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Housing for Airport Staff	15	10	—	25
Purchasing fire-fighting engines	50	—	—	50
Completing the airport building	20	20	—	40
Navigational aids	40	50	50	140
Total	125	80	50	255

c. Amman International Airport

Engineering studies and designs were prepared by Union Engineering (a Yugoslav Consulting Firm) for a new international airport at Zeezya, 25 Km. south of Amman. These designs were submitted to the Government in mid 1971. On the basis of these designs, the cost of the first phase was estimated at JD 11.3 million.

At the end of 1971 an agreement for consulting services was signed with Rhein-Ruhr of Germany in association with Bechtel and Dar al-Handasah with the object of reviewing the previous designs and preparing a feasibility study for this project. A draft report was submitted in June 1972. It showed that the project was economically feasible and included proposals for re-design which will reduce the cost of the first phase of the project to approximately JD 8.7 million.

Thirty million Deutsche Marks have been allocated for this project. The remaining funds will be financed from

German loans and the government budget and will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	400	1,300	2,150	3,850
German Loan	100	200	350	650
Total	500	1,500	2,500	4,500

5. Royal Jordanian Airlines Corporation - ALIA

a. Alia's fleet comprises the following :

1. Two Boeing 707/320C aircraft, each with a capacity of 147-185 passengers and 5-7 tons of freight. These aircraft may be used exclusively for transporting freignt with 35 tons per aircraft.

2. Three Caravelle aircraft, each with a capacity of 79-89 passengers and 1.5 tons of freight.

Alia's fleet flew 4313 trips in 1971 involving 10956 flight hours and covered more than seven million kilometers. It is expected that Alia's activities will be increased in 1972 up to 12130 flight hours.

b. Goals

1. Alia aims at providing rapid, comfortable and safe transportation facilities to Jordan to develop tourism and to strengthen the relationship between Jordan and other countries of the world.

2. Development of air freight transportation of exported and imported goods and commodities and development of exports to the outside markets.

3. Cooperation with concerned agencies in the field of tourism promotion.

It is expected that the production capacity of Alia's fleet will increase from 774 million seat-kilometers in 1971 to 1144 million seat-kilometers in 1975 (an increase of 50% during the plan period). This increase will be effected by the expansion of Alia's route-network, an increase in the number of weekly frequencies on some routes and achieving higher load factors. All this comes as a result of an increase in sales and the support of Alia's fleet.

c. Alia's capital expenditures have been included with the private sector investment of the Transportation Sector.

SUMMARY OF CIVIL AVIATION PROJECTS

(in JD 000's)

	1973	1974	1975	Total
1. Improving the present Amman Airport	140	150	150	440
2. Completion of Aqaba Airport	125	80	50	255
3. Amman International Airport	500	1,500	2,500	4,500
Total	765	1,730	2,700	5,195

E. METEOROLOGICAL SERVICES

Several improvements have been made in the Meteorological Department. Among these are : providing the Department with equipment, apparatus and materials and constracting a three-storey building at the Amman Airport site and office buildings in Baqoura, Irbid, H-4, Ma'an and Shoubak.

2. Goals

a. Ensuring greater precision in weather forecasting and completing the network of weather observation stations and forecasting offices.

b. Satisfying the meteorological requirements of modern civil and military aviation, particularly supersonic air transport.

c. Improving the standard of services rendered by the Department in the fields of agrometeorological observations and forecasts in order to increase and develop agriculture and livestock output in Jordan.

3. Organizational Measures

a. Charging fixed fees for meteorological and climatic information provided by the Meteorological Department to users.

b. Developing the Climate Division by applying and using modern statistical techniques and computers in performing climatic statistical calculations.

c. Providing training opportunities for the technical staff of the Meteorological Department both locally and abroad.

4. Projects

a. Developing and Completing the Network of Agrometeorological Stations.

This project aims at developing and completing the network of agrometeorological stations so as to comprise five such stations distributed among the different climatic regions in Jordan.

Costs, estimated at JD 28,000, will be financed from the government budget and distributed as follows:

(in JD 000's)

	1973	1974	1975	Total
Government Budget	10	9	9	28

b. Improving and Completing the Meteorological Telecommunications Network

This project aims at improving and completing the meteorological telecommunications network of the Meteorological Department. Two transmitters will be installed to transmit meteorological data regularly to the World in accordance with the World Weather Watch (WWW) Plan. These will also link together all meteorological stations by SSB transceivers to insure the transmission and reception of meteorological data directly, instead of by telephone. The Department will also acquire receiver sets, teleprinters and facsimile equipment in numbers sufficient for receiving digital and pictorial meteorological information from the World, accurately and regularly.

Costs, estimated at JD 84,000, will be financed from the government budget and distributed as follows:

			(in JD 000's)	
	1973	1974	1975	Total
Wireless Sets and Teleprinters				
Facsimile equipment	10	10	10	30
Aerials	3	3	3	9
Spare Parts	10	2	1	13
Land Appropriation for Constructing a	8	5	5	18
Wireless Station	—	10	—	10
Transceivers	—	2	2	4
Total	31	32	21	84

c. Establishing a Meteorological Office at Aqaba Airport

This project includes the establishment of the meteorological office at Aqaba Airport to prepare meteorological forecasts and provide the necessary weather maps and documentation for all flights through Aqaba. The establishment of this office requires the procurement of meteorological and communications equipment and recruiting weather observers and forecasters.

Costs, estimated at JD 25,000, will be financed from the government budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Wireless Communication Sets	20	—	—	20
Transmissometer	5	—	—	5
Total	25	—	—	25

d. Establishing a Weather Radar Station

This project aims at establishing a weather radar station to detect clouds, their density and amounts, and the intensity of rain precipitation and to determine the locations and intensity of thunderstorms in order to issue precise weather warnings for aviation purposes and expected floods.

Costs, estimated at JD 30,000, will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	—	—	30	30

SUMMARY OF METEOROLOGICAL PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Developing and Completing the Network of Agrometeorological Stations	10	9	9	28
2.	Improving and Completing the Meteorological Telecommunications Network	31	32	21	84
3.	Establishing a Meteorological Office at Aqaba Air-port and Providing it with Instruments	25	—	—	25
4.	Establishing a Radar Weather Station	—	—	30	30
	Total	66	41	60	167

Investment of the Private Sector In the Field of Transportation

The Plan estimates the investments of the private sector in financing private transportation projects during the Plan period at JD 8 million. This includes the purchase of trucks, passenger service cars, commercial aircraft and storage facilities, etc.

These investments will be distributed during the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
Private Sector Investments	2.000	2,000	4,000	8,000

SUMMARY OF COSTS OF PROJECTS OF THE TRANSPORTATION SECTOR

(in JD 000's)

		1973	1974	1975	Total
1.	Roads	3,215	1,720	1,625	6,560
2.	Railways	6,500	6,500	2,500	15,500
3.	Port of Aqaba	380	10	—	390
4.	Civil Aviation	765	1,730	2,700	5,195
5.	Meteorological Services	66	41	60	167
	Total	10,926	10,001	6,885	27,812
6.	Estimated Private Sector Investments	2,000	2,000	4,000	8.000
	Grand Total	12,926	12,001	10,885	35,812

9. COMMUNICATIONS, BROADCASTING AND TELEVISION

This sector includes telecommunications, postal services, broadcasting and television. The Ministry of Communications is currently entrusted with the tasks of providing telecommunications and postal services. During the past few years, the Ministry installed two new automatic exchanges and switchboards in Mahatta and Jabal Amman, expanded Amman's switchboard, installed automatic exchanges and switchboards in Jerusalem, Jericho, Bethlehem, Ramallah, Irbid and Aqaba, set-up five high-frequency transceivers in Amman and three carrier systems connecting Amman, Irbid and Aqaba, and installed three telex exchanges and bought two telex switchboards for installation in Jerusalem and Nablus. The Ministry also installed automatic error correction equipment for international radio telegraphy services, switched from hand keyed morse system to teleprinters, and connected the transceiver stations by suitable cables.

Among the Ministry's most important achievements were the installation of a satellite station and the introduction of milliwave communications. In 1972, three additional circuits were added to the satellite station. Moreover, a microwave link connecting the Station with the Amman automatic switchboard was installed, with a 960-channel capacity, in addition to a television channel and a stand-by channel. Another television link connecting the Amman automatic switchboard with the Jordan Television Studios was also installed.

The Ministry has opened more than 400 post offices all over the Kingdom. It has also started installing three new automatic exchanges : two in Amman and one in Zerka and connecting Amman with Beirut via Irbid. It is setting up an automatic exchange in Salt and constructing the Technical Training Centre Building in Amman.

In 1966, the Jordan Government signed a loan agreement with USAID (United States Agency for International Development) to finance the improvement and expansion of telecommunications in

Jordan. According to this agreement, telephone services in Jordan will be improved and expanded by means of new exchanges, cable networks, junction cables and other ancillary works. Also, telecommunication services will be operated on a commercial basis. Contracts for the procurement and installation segment of this project were signed in 1971. In the same year, Law No. 29 was enacted. According to this Law, a Telecommunications Corporation shall be established with an independent juridical personality and administrative and financial independence. It shall undertake all telecommunications activities and run them on commercial basis.

The Jordan Television Corporation started in April 1968 with daily transmission of two hours, which was later extended to six. In addition, the Television Corporation transmits morning educational programmes for a period of as many as six hours a day.

It has also produced and marketed a number of programmes and delegated 80 Jordanian technicians to work with the television stations of the Arabian Gulf Emirates.

The Hashemite Broadcasting Service has acquired a second medium-wave 100 Kw transmitter which could be synchronised with the first to give 200 Kw transmission power. Such transmission could cover all regions of the Kingdom except Aqaba. The station also has a 100 Kw short-wave transmitters directed to the Arab countries, Europe and to 40,000 Jordanians living in Latin America.

A. TELECOMMUNICATIONS

1. Characteristics and Problems

a. Currently, available lines are not adequate to meet the demand, especially in Amman.

b. Need to improve the quality of service rendered to citizens.

c. Lack of comprehensive training scheme for employees to improve capabilities and efficiencies.

d. Low efficiency and performance and lack of technical capabilities due to the application of old methods of employment: low pay scales, and non-existence of job description.

e. Lack of modern accounting systems. This led to a decline in revenues from telecommunication services and to delays in collection.

f. Absence of a modern scientific method of organizing warehouses, especially in areas related to purchases, equipment maintenance and record keeping, apart from the inadequate number of existing warehouses.

2. Goals

Telecommunications goals of the Plan have been integrated with a long-term master plan aimed at the provision of improved telecommunication services in every region of the Kingdom.

The main goals of the Telecommunications Plan are :

a. Better utilization of existing resources and improvement of services.

b. The provision of new and expanded communications services.

The detailed goals are :

A. On the Local Level

1. Increasing the ratio of telephone numbers relative to population in Amman from 3.5% to 8%.

2. Increasing the ratio of telephone numbers in other main cities from 1% to 5%.

3. Increasing telephone numbers in small towns and villages to meet actual needs.

B. On the National Level

Connecting Amman with the other main cities through a direct distance dialing system (D. D. D.)

C. On the Regional and International Levels

1. Improving communication systems between Jordan and neighbouring Arab countries.

2. Introducing new improvements to international communications between Jordan and the outside world, through the Satellite Station. Also, studying the possibility of installing an antenna for satellite telecommunications via the Indian Ocean.

3. Organizational and Policy Measures

a. Supplying the newly-established Telecommunications Corporation with capable staff.

b. Establishing a telecommunications institute for training the employees of the Ministry of Communications, the Broadcasting Station, Jordan Television, the Meteorological Department and the Civil Aviation Department in telecommunication techniques. Consideration will be given to the possibility of attaching this institute to the Polytechnic Institute to be established during the Plan period.

c. Formulating a telecommunications master plan which would take further demand into consideration and device a time-schedule for meeting it.

d. Establishing a Higher Telecommunications Board with the authority to determine the overall policies of the various agencies dealing with telecommunications in Jordan. This would include financial and technical supervision and the setting up of technical standards for equipment and materials. This board shall comprise members from the ministries of Communications, Information and Culture, Finance and representatives from the Armed Forces, the Royal Scientific Society and the National Planning Council.

e. Revising service tarriffs on local, national, regional and international communications on the basis of actual costs and actual service concerned.

f. Relying on lolcally-produced materials for meeting the requirements of communications projects, such as poles, conduit, manholes, cables, cable racks and others.

4. Projects

a. Improvement of Telecommunications

In its original design, this project included the establishment of a microwave network between Amman, Jerusalem and Nablus and increasing the number of telephone lines in the cities of Amman, Zerka, Jerusalem and Nablus. The foreign exchange costs of the project, which amount to $ 6.3 million (JD 2.25 million), were financed from a USAID loan. Engineering designs and tender documents were prepared and the implementation of the project was expected to start in mid 1967; however the occupation of the West Bank prevented that. In 1969, amendments to the project were introduced, allowing for the implementation of the project in the East Bank as a first stage. However, some administrative difficulties delayed the start of the work until mid 1971.

This project includes:

1. First Stage

This stage includes:

a) Installation of an automatic exchange in the Abdali Area in

Amman, with an initial capacity of 7,000 lines and a final capacity of 10,000 lines.

b) Installation of an automatic exchange in the Ashrafiya Area in Amman, with an initial capacity of 7,000 lines and a final capacity of 10,000 lines.

c) Installation of an automatic exchange in the city of Zerka, with an initial capacity of 1,800 lines and a final capacity of 7,000 lines.

d) Introduction of Direct Distance Dialing between Amman-Zerka and Amman - Irbid.

e) Providing (36) telephone channels between Amman and Zerka and (60) telephone channels between Amman and Irbid to serve the direct distance-dialing system. The Microwave Project for southern Jordan, to be constructed by the Television Corporation, will serve D.D.D. between Amman and Aqaba.

f) Construction of civil works such as buildings, conduits and manholes, and related other works.

g) Installation of the required interfacing equipment between the existing exchanges and the new American-made exchanges.

The necessary financing of the above works which amounnts to JD 3.26 million, has been covered from both a U. S. A. loan and PL 480 wheat loan.

A British loan without interest was also obtained for the amount of JD 290,000 to finance the procurement and installation of :

a. The interfacing equipment mentioned in (g) above.

b. Junction cables between the Amman Central Exchange and the Jabal Amman and Mahatta Exchanges.

c. Expansion of the Jabal Amman Exchange by 1,000 lines.

d. Purchase of open-wire carrier equipment.

Work on this project started in 1971 and, by the end of 1972, an estimated total of JD 2.31 million will be spent.

A detailed review of the original plans of this project has been conducted with the consultants and USAID. It was found that the following supplementary works are needed.

h) Necessary items of work not included in the original project.

These include : purchasing and installing equipment for improving the performance of transmission and purchasing and installing main cables, providing the new network with a cabinet distribution system, pressurizing the cable system, adjusting Irbid's switchboard, and completing the work on junction lines, manholes and cables. Costs are estimated at JD 400,000 of which JD 321,000 are expected to be expended by the end of 1972.

i) Additional works necessary for the operation of the project.

These include purchasing and installing the distribution cables, subjecting the existing network to a pressurizing system, and installation of a microwave system between Amman and Zerka and between Amman and Beirut, via Irbid. Costs are estimated at JD 906,000. Contracts for Amman-Beirut and Amman-Zerka microwave system were awarded in mid 1972. The works are expected to be financed from the Government budget and a commercial loan, at a total cost of JD 440,000. Amounts expected to be spent on these additional works are estimated at JD 346,000.

Total costs of this first stage of the project are expected to add up to JD 4.566 million, of which JD 2.977 million will be spent by the end of 1972. The balance will be expended during the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
General Budget	359	81	—	440
British Loan	163	30	—	193
American Loan	950	6	—	956
Total	1,472	117	—	1,589

II. Second Stage

This complements the telecommunications improvement project. It aims at meeting the increasing demand for telephone services and improving these services, especially as a long time has elapsed between design and implementation of the project. The need for improvement becomes more urgent when viewed against the large population increase in Amman and Zerka. This project aims at increasing the capacity of Abdali exchange from 7,000 lines to 10,000 and that of Zerka from 1,800 to 5,000. It also includes the expansion of the direct distance dial exchanges of Salt, Aqaba and other places designated by the Plan, as well as formulating a comprehensive master plan for telecommunications services in the Kingdom. Total costs are expected to reach JD 1.22 million, of which JD 98,000 will be expended by the end of 1972. Costs over the Plan period are estimated at JD 1.122 million. Contacts have been made with USAID for the purpose of acquiring an additional loan covering the foreign exchange requirements of the project, local costs will be financed from the PL-480 wheat loans. Costs over the Plan period will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
American Loans	415	621	86	1,122

Therefore, the total amounts of this two-stage project which will be expended during the Plan shall be as follows :

(in JD 000's)

			1973	1974	1975	Total
1.	First Stage		1,472	117	—	1,589
2.	Second Stage		415	621	86	1,122
		Total	1,887	738	86	2,711

b. The Technical Training Institute

In view of pressing need for raising the efficiency standards of the telecommunications staff, an agreement with UNDP was concluded in 1971, calling for the establishment of the technical institute for training employees in telecommunications techniques. The centre will also be utilized for training employees working in television, radio, civil aviation and meteorological services.

Construction of the centre will be started in 1972, and an amount of JD 40,000 has been allocated in the 1972 Government Budget for that purpose.

UNDP will contribute the necessary equipment and technical experts and will finance training and scholarships. Total allocated amounts for this contribution are estimated to be JD 260,000.

Total capital expenditures on buildings and equipments over the Plan period are estimated at JD 85,000, distributed as follows:

(in JD 000's)

		1973	1974	1975	Total
UNDP Contribution		36	27	7	70
General Budget		15	—	—	15
	Total	51	27	7	85

c. Upgrading of Existing Network

This project aims at upgrading the existing distribution network in order to raise the efficiency and quality of service and prevent technical breakdowns. Total costs are estimated at JD 595,000 of which JD 415,000 will be spent during the Plan period. These costs will be financed from the Government Budget and from an external loan. They are estimated as follows :

(In JD 000's)

	1973	1974	1975	Total	Total Cost of Project
A. Equipment for Overhead Distribution, Distribution Boards and Aerial Cables	50	20	20	90	140
B. Testing and Default Locating Equipment and Mobile Air-Compressors	20	—	—	20	20
C. Study of Amman Distribution Network, Replacing Worn-out Cables and Rearranging and Regrouping underground Cables in Higher Capacity Water Proof Cables	30	35	35	100	160
D. Mobile Cranes and Other Equipment for Carrying, Laying and Drawing Cables	15	10	—	25	25
E. Pressurizing of Main Underground Cables in Amman, Irbid and Zerka	—	20	20	40	60
F. Introducing the Cabinet System into the Distribution Network in Amman and Irbid	—	20	30	50	80
G. Purchasing Manual Switchboards	15	15	10	40	60
H. Replacing Carrier System Equipment in Rural Areas with Standard Equipment	30	20	—	50	50
Total	160	140	115	415	595

d. Expanding Local Services

This Project aims at carrying out the expansion works cited below. Costs over the Plan period, estimated at JD 1.191 million, will be financed from the Government Budget and external loans and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total	Total cost of Project
A. Equipment for Introducing the 6 digit Numbering Scheme in Amman Area	—	60	—	60	60
B. Installing a New automatic exchange in Marka, with a capacity of 3,000/10,000 lines (buildings, equipment and network)	—	—	100	100	600
C. Installing a New Exchange in Wadi El-Sair Junction with a capacity of 3,000/10,000 lines	—	—	100	100	600
D. Installing Telephone Booths in Amman	2	2	3	7	7
E. Increasing Irbid exchange capacity from 2,000 to 4,000 lines	112	115	115	342	342
F. Increasing Aqaba exchange capacity from 1,000 to 2,000 lines.	—	30	100	130	180
G. Installing a new Automatic exchange in Ramtha with a capacity of 1,000/3,000 lines	—	—	50	50	350
H. Installing a new Automatic exchange in Ma'an with a capacity of 1,000/3,000 lines	—	50	50	100	350
I. Installing a new Automatic exchange in Karak with a capacity of 1,000/3,000 lines	—	—	50	50	350
J. Manual Switchboards	16	5	6	27	27
K. Establishing Post Offices	25	25	25	75	75
L. Renewal of Buildings and Postal Offices	75	50	25	150	150
Total	230	337	624	1,191	3,091

This project will be studied and designed in conjunction with Project C (Upgrading of Existing Network), by technical consultants.

e. Expanding National Services

This project includes the expansion of the national services cited below. Costs over the Plan period, estimated at JD 180,000, will be financed from the Government Budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
A. Trunk Networks : Installing Open Wire Carrier Equipment on Overhead Trunk Lines in Irbid-Mafraq / Irbid-Jerash / Irbid-Ajlun / Irbid-Northern Shuneh/Jerash-Mafraq/ Salt-Southern Shuneh	40	30	—	70
B. Linking Jerash with Mafraq	30	—	—	30
C. Purchasing 100 Teleprinters to Expand Automatic Telegraphic Services	40	20	20	80
Total	110	50	20	180

f. Expanding Regional Services

This project aims at expanding the regional communications cited below. Costs over the Plan period, estimated at JD 350,000, will be financed from the Government Budget and foreign loans, and will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total	Total cost of project
A. Amman-Baghdad link	—	50	100	150	350
B. Amman-Saudi Arabia link	—	50	100	150	450
C. Expanding the capacity of Manual System between Amman, Beirut and Damascus	50	—	—	50	50
Total	50	100	200	350	850

Studies will be carried out during the Plan period for expanding regional services to include Amman-Tehran, via Baghdad.

g. Expanding International Services

This project aims at increasing the efficiency of the Jordan Satellite Station by the introduction of the "Spade" system. Costs, estimated at JD 150,000, will be financed from the Government Budget and distributed as follows :

(In JD 000's)

	1973	1974	1975	Total
Government Budget	—	45	105	150

h. Studies

This project aims at conducting economic and technical studies on local and junction networks. Costs, estimated at JD 60,000, will be financed from foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Assistance	40	20	—	60

i. Equipment and Materials

This project includes purchasing teleprinters in the amount of JD 15,000 to be financed from the Government Budget as follows :

(In JD 000's)

	1973	1974	1975	Total
Government Budget	15	—	—	15

j. Establishing Workshops for the Testing, Assembling and Repairing of Equipment

This project includes establishing a workshop for the testing, assembling and repairing of telecommunications equipment. The cost of this project is estimated at JD 70,000 to be financed from the Government Budget as follows :

(In JD 000's)

	1973	1974	1975	Total
Government Budget	20	40	10	70

k. Introduction of a Computarised Accounting System

This project aims at establishing a computarised accounting system to meet the needs of existing and proposed projects of the Plan. This would be in the areas of book keeping, cost accounting, warehouse accounting and financial reporting. The project will be planned and implemented in collaboration with the Royal Scientific Society. Total costs of this project are JD 50,000 to be financed from the Government Budget. During the Plan period, JD 25,000 will be spent as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	15	5	5	25

1. Warehouse Construction

This project aims at constructing modern warehouses for storing telecommunications equipment. Existing warehouses have become unsuitable and can no longer accommodate the equipment and materials imported for new projects and for operation and maintenance.

Warehousing techniques and methods will be upgraded, and computarised stores accounting, including inventory control, shall be introduced in collaboration with the Royal Scientific Society.

Costs of this project are estimated at JD 100,000 and will be financed from the Government Budget. These costs are distributed as follows ·

(in JD 000's)

	1973	**1974**	**1975**	**Total**
Government Budget	25	50	25	100

SUMMARY OF TELECOMMUNICATIONS PROJECTS

(In JD 000's)

	1973	1974	1975	Total
1/1. Improving Telecommunications : First Stage	1,472	117	—	1,589
1/2. Improving Telecommunications : Second Stage	415	621	86	1,122
2. Technical Training Centre	51	27	7	85
3. Upgrading the Present Network	160	140	115	415
4. Expanding Local Services	230	337	624	1,191
5. Expanding National Services	110	50	20	180
6. Expanding Regional Services		100	200	350
7. Expanding International Services	—	45	105	150
8. Studies	40	20	—	60
9. Equipment and Materials	15	—	—	15
10. Workshops for Testing, Assembling and Repairing of Equipment	20	40	10	70
11. Introduction of Automatic Accounting Services	15	5	5	25
12. Building Warehouses	25	50	25	100
Total	2,603	1,552	1,197	5,352

B. THE HASHEMITE BROADCASTING SERVICE

1. Goals

The Plan aims at boosting existing transmitters as well as expanding transmission to the various regions of the Kingdom and to neighbouring Arab countries. It also aims at improving programme quality within the framework of well planned information, cultural and entertainment policy.

2. Projects

a. New Transmitters

This project aims at the construction of a 1.5 - 2 megawatt medium-wave transmission station, to be installed in the northern region of the Kingdom. The project includes the purchase and installation of transmitters, power generators, complete antenna systems, and links between the studios in Amman and the new transmission station. The time required for the implementation is estimated at 18-24 months, at the cost of JD 1.35 million. The tender for this project is expected to be awarded during the second half of 1972. Expenditure during the Plan period is estimated at JD 1.1 million to be financed from foreign loans and distributed as follows:

(In JD 000's)

	1973	1974	1975	Total
Foreign Loans	700	400	—	1,100

b. Renovation of Existing Studio Facilities

This project includes the renovation of the existing four broadcasting studios, especially with regard to sound insulators and technical equipment, provided that the existing personnel at the Radio Station would themselves execute the project. The cost is estimated at JD 100,000 to be financed from the Government Budget and distributed as follows :

(in JD 000's)

		1973	1974	1975	Total
1.	Sound Insulation of Studios	7	7	6	20
2.	Equipment	20	20	20	60
3.	Equipment for Emergency Studio	5	5	10	20
	Total	32	32	36	100

c. Improvement of Transmitting Equipment

This project includes the purchase of a new 10-kilowatt transmitter. The existing personnel would carry out the installation. The cost is estimated at JD 100,000 to be financed from the Government Budget and distributed as follows :

(In JD 000's)

	1973	1974	1975	Total
Government Budget	—	50	50	100

SUMMARY OF PROJECTS OF THE HASHEMITE BROADCASTING SERVICE

(in JD 000's)

		1973	1974	1975	Total
1.	New Medium Wave Transmitting Station	700	400	—	1,100
2.	Studio Renovation	32	32	36	100
3.	Improvement of Transmitting Equipment	—	50	50	100
	Total	732	482	86	1,300

C. JORDAN TELEVISION

1. Goals

a. Proper utilization of existing equipment and human resources to attain higher efficiency.

b. Enhancing and developing local production through the encouragement of local artistic and intellectual talents.

c. Expanding transmission to all regions of the Kingdom.

d. Giving due attention to developmental information, emphasizing the significance of the role played by the citizens and their participation in the development process.

2. Organizational and Policy Measures

Enhancing the existing research section at the Television Station so as to enable it to evaluate programmes, to submit proposals and studies aiming at the improvement of the quality and standards of local programmes and to conduct surveys on public opinion trends with regard to television programmes. The assumption is that this section should be the nucleus of a planning body which will seek available expertise and capabilities.

3. Projects

a. The Irbid Transmission Station

This project is considered part of the Amman -Irbid-Beirut microwave project. The estimated cost of the part of the project pertaining to covering the Irbid area with Television transmission is JD 60,000 to be financed from the Government Budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Land and Buildings	10	—	—	10
Equipment and Installation	25	25	—	50
Total	35	25	—	60

SUMMARY OF COMMUNICATIONS, BROADCASTING AND TELEVISION PROJECTS

(In JD 000's)

		1973	1974	1975	Total
a.	Communications	2,603	1,552	1,197	5,352
b.	Broadcasting	732	482	86	1,300
c.	Television	35	25	—	60
	Total	3,370	2,059	1,283	6,712

10. FOREIGN AND DOMESTIC TRADE

Foreign trade plays a significant role in the Jordan economy, accounting for 36.7% of GNP in 1971. Imported consumer goods constitute around one-fifth of private consumption, while the value of imported capital goods forms a big proportion of gross domestic investment.

Domestic wholesale and retail trade constitutes one of the principal economic activities. The value added in this sector was JD 39 million in 1971, or 19% of GDP at factor cost.

The average annual growth rate of imports for the period 1967-1971 was 8.8% ; their value increased from JD 54.2 million to JD 76.3 million. On the other hand, the value of exports did not change significantly. It was JD 11.3 million in 1967 and JD 11.4 million in 1971.

The Government has exerted considerable efforts to develop the Port of Aqaba, Jordan's main outlet for import, export and transit activities. A Maritime Establishment was founded, whose activities include the unloading of imported commodities and moving them to the berths. Moreover, the Government gave particular attention to the development of various public services that activate domestic trade.

2. Characteristics and Problems

a. The volume of domestic exports is still limited, amounting to JD 8.82 million in 1971, or 3.7% of GNP. Besides, exports are mainly composed of a few commodities and raw materials. Vegetables, fruits and other agricultural products form around 56% of the total value of exports, while phosphate accounts for around 30%. Although some industrial products like cement, woollen textiles, batteries and cigarettes are exported, industrial commodity exports are still meagre.

On the other hand, the ratio of imports to GNP is high ; it reached 31.9% in 1971. Imports of consumer goods accounted for 43.8% of total imports, which implies that there are prospects for import-substituting industries.

b. The trade balance suffers from an increasing and chronic structural deficit, which rose from JD 42.9 million in 1967 to JD 64.9 million in 1971.

c. The volume of Jordan's trade with Arab countries forms a high proportion of the Kingdom's foreign trade. Imports from Arab countries constituted 21.8% of total imports in 1971, while exports to these countries accounted for 75.7% of Jordan's total export for the same year.

d. Foreign trade activities are almost wholly carried out by the private sector. The role of the Government is confined to the following :

1. Issuing import licences and foreign exchange permits.
2. Concluding bilateral trade agreements, payments agreements and other agreements relating to economic cooperation with other countries.
3. Entering into multilateral agreements such as the Facilitating Trade and Transit and Settlement of Payments Agreement concluded among Arab countries in 1953 and the Arab Economic Unity Agreement which was signed in 1957 and came into force in 1964.
4. Importing directly certain commodities, like sugar and rice, by the Supply, Export and Import Department.
5. Enforcing and managing the tools of commercial, monetary and fiscal policies which affect foreign trade, such as changing customs duties.

e. The wholesale and retail trade sector is mostly composed of small establishments. Out of 13,348 commercial establishments in the East Bank in 1970, only thirteen employed 25 people or more. The number of persons employed by this sector was 21,595 in 1970.

Domestic trade activities are carried out freely. Government intervention is confined to flexible control of prices, exercised by the Department of Supply, Import and Export, and of the standards of goods affecting public health, exercised by health control officers of Amman Municipality.

3. Goals

a. Checking the increase in the trade deficit through promoting the growth of exports at a rate higher than that of imports. It is planned that commodity exports will increase on the average by 16.4% per annum, from JD 11.4 million in 1971 and an estimated JD 15.2 million in 1972 to JD 23.8 million in 1975. Commodity imports will increase on the average by 7.5% per annum, from JD 76.3 million in 1971 and an estimated JD 80.0 million in 1972 to JD 102.0 million in 1975. As a result, the trade deficit during the Plan years will display some increase. It will rise from JD 64.9 million in 1971 and an estimated JD 64.8 million in 1972 to JD 78.2 million in 1975, as shown below :

Commodity Trade Balance

(JD million)

	Exports	Imports	Deficit
1967	11.3	54.2	42.9
1968	14.3	67.7	53.4
1969	14.8	67.5	52.7
1970	12.2	65.5	53.3
1971	11.4	76.3	64.9
1972	15.2	80.0	64.8
1973	17.5	86.0	68.5
1974	20.0	93.5	73.5
1975	23.8	102.0	78.2

b. Rationalizing foreign trade activities in particular imports in order to improve the terms of trade for the Kingdom.

c. Securing the stable flow of essential consumer goods in adequate quantities and at reasonable prices, in particular rice and sugar.

d. Increasing the value added in the domestic wholesale and retail trade sector at an average annual rate of 7 , from JD 39 million in 1971 and an estimated JD 40.6 million in 1972 to JD 50.7 million in 1975.

4. Organizational and Policy Measures

a. Stimulating Jordanian exports by simplifying measures related to commodity exports, establishing commercial centres and participating in international fairs.

b. Establishing commercial companies among the private sector establishments in order to contact foreign markets on a group basis. The goals of such companies would include looking for new sources of imported commodities and studying the possibilities of reducing the number of similar goods imported from several sources.

c. Establishing an industrial free zone in Aqaba, where foreign and domestic businessmen can erect assembly industries which produce products for export and domestic consumption.

d. Supporting Arab economic integration, in particular the Arab Common Market and other groupings, such as the Arab Payments Union, which are advantageous to the Jordanian economy.

e. Arranging agricultural and industrial fairs in Jordan.

f. Revising the tariff structure so that customs duties on luxury goods are raised and on essential consumer goods and raw materials necessary for processing are eliminated.

5. Projects

a. Establishing Consumer Co-operatives

In 1971, the Government established three shopping centres in Amman with the purpose of providing consumer goods at reasonable prices. This project aims at establishing three more centres in Irbid, Zerka and Salt during the Plan period. The established and new centres will be eventually transformed into co-operatives. Costs are estimated at JD 75,000 to be distributed as shown below :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	25	25	25	75

b. Establishing a Public Corporation for Imports and Exports

This project aims at establishing a public corporation which will import essential consumer goods on a commercial basis, in particular from Arab Common Market countries, to secure a stable flow of essential consumer goods in proper quantities and at reasonable prices. Capital for the corporation is estimated at JD 100,000 to be provided by the Government and the private sector.

(In JD 000's)

	1973	1974	1975	Total
Government Budget	50	—	—	50
Private Sector	50	—	—	50
Total	100	—	—	100

c. Private Sector Investment in Trade

The investment of the private sector in commercial projects is estimated at JD 600,000, distributed as follows :

(in JD 000's)

1973	1974	1975	Total
200	200	200	600

SUMMARY OF PROJECTS

(In JD 000's)

		1973	1974	1975	Total
1.	Establishment of Consumer Cooperative Societies	25	25	25	75
2.	Establishment of Public Corporation for Imports and Exports	100	—	—	100
3.	Private Sector Investments	200	200	200	600
	Total	325	225	225	775

11. EDUCATION AND YOUTH WELFARE

During the last decade, Jordan achieved significant accomplishments in the fields of education and youth activities. Among the most important factors which have contributed to these achievements are: the thirst of the Jordanian people for knowledge and education at all levels and the enactment of compulsory education legislation (Education Law No. 16 of 1964), which opens wide the opportunity of education for the maximum number of potential students in the elementary and preparatory levels of education (within the age group of 6-14 years). In 1971 - 1972, 90% of this age group was in schools.

As for secondary education, which is not compulsory, the Ministry has adopted an open-door policy, particularly in the academic type of secondary education. Of the total number of young people of secondary-school age (15 - 18 years), 35% availed themselves of the opportunity for secondary education. This percentage is evidently very high and, consequently the time is ripe for a reassessment of educational policy towards secondary education.

The number of students in the Kingdom in the compulsory and secondary stages has risen from 330,677 students in 1961 - 1962 to 659,907 in 1971 - 1972.

Education in Jordan is administered by the Ministry of Education and other governmental authorities, UNRWA, and private national and foreign bodies. Government schools accommodate 70% of the student population, while UNRWA and private schools enroll 20% and 10% respectively.

As for higher education, the University of Jordan started its first academic year in 1962 with an enrollment of 167 students, and by 1971 - 1972 the number of students had risen to 3,030.

The University has started to play an effective role in the social and economic development of Jordan.

The University of Jordan is not the only institution of higher learning for Jordanian students. According to 1970 statistics, Jordan had 25,473 university students, 84% of whom were studying abroad. The Jordanian enrollment ratio in higher education is 18%. This is high if compared with ratios in other parts of the world. Percentages in some other parts of the world (according to the International Bureau of Education in Geneva) are : 1.3% in Africa, 5% in Latin America, 4.7% in Asia, 16.7% in Europe and the USSR, and 3.1% in the Arab World.

The Youth Welfare Organization was established in 1966 to promote the educational, social and physical activities of youth. Prior to its establishment, youth activities had not been organized in a way that could promote the welfare of young people, actualize their potentialities or provide them with the means of occupying their leisure time in a productive way.

The Organization aims to implant the spirit of social services, cooperation and group action and to orient the youth towards the idea of "service before self." The Organization also aims at making the youth participate effectively in the social and economic development of the country.

During the last five years the Organization has built and managed the Hussein Sports City for Youth, established fifteen male and fifteen female youth centres, and supported and encouraged the scouts movement, clubs and athletic leagues.

A. EDUCATION

1. Characteristics and Problems

The expansion of educational opportunities has given rise to a number of problems related directly or indirectly to the qualitative aspects of education. Among these are :

a. Uncontrolled Expansion of Secondary Education :

This expansion in secondary education has produced unemployment among graduates of academic secondary schools. It was brought about at the expense of vocational education, which claimed only 8.4% of the total student body at the secondary level during the academic year 1971 - 1972. While candidates in the literary and scientific streams for the Secondary School Certificate Examination in 1971 numbered 14,125, candidates in the vocational stream did not exceed 1,174.

b. Shortage of Professionally Qualified Teachers :

The Ministry of Education has expended considerable effort on establishing several teachers colleges, but the number of graduates is short of demand. The problem has been further aggravated by the outflow of teachers to other sectors in Jordan or to other countries. In 1971 - 1972, the number of unqualified teachers constituted 70% of the total number of teachers in the compulsory stage, and the percentage of teachers without university degrees in the secondary stage was 40%.

c. Shortage of Qualified Educational Administrators :

Only 10% of educational administrators are professionally qualified.

d. School Buildings :

The shortage of school buildings necessary to meet the quantitative expansion of education has caused the responsible authorities to rent residential houses on an increasing scale and use them as school buildings. Rented classrooms constituted 58.4% of total classrooms during the academic year 1971 - 1972. In addition, most classrooms in the main cities are heavily crowded with pupils and many schools employ the two-shift system. The problem is further complicated by the scarcity of building sites, especially in large city areas.

In order to cope with this problem, an American consulting firm was requested to conduct a study on the requirements of the Kingdom for school buildings during the next ten years. The preliminary results of the study indicate that the Ministry of Education will need about 420 schools during the next ten years, the cost of which is estimated to be JD 60 million.

2. Goals, Organizational and Policy Measures :

Raising the educational and professional levels of human resources is considered an effective factor in accelerating the process of social and economic development, through increasing productivity and improving the level of performance. Accordingly, the widening of the compulsory education base, the improvement of the quality of education, the emphasis on vocational secondary education, especially the industrial type, and the raising of the educational level of the labour force, are considered fruitful economic investments, quite apart from their educational values.

Under such a concept, the direct goals of the Plan for education are :

a. Persisting in the present policy of making education compulsory at the elementary and preparatory stage by the end of the present decade, by means of :

1. Establishing a number of schools sufficient to accommodate children in the first elementary grade especially in the remote rural and desert areas.

2. Taking all possible measures to cut down the percentage of dropouts from the elementary and preparatory levels of education and to keep pupils in the compulsory level for at least nine years.

b. Linking secondary education, in the long run, with the needs of Jordan for skilled manpower, especially in the areas of industry, agriculture, construction, commerce and teaching. This would aim at meeting the requirements of the various facets of economic activity, ensuring the proper implementation of the Plan and developing Jordan's human resources. These constitute one of the most important factors of production and contribute substantially to the increase of Jordan's foreign exchange receipts.

c. Maintaining the continuity of the development of curricula and textbooks which help prepare the student to meet the demands of the technical age. These demands call for respect for manual labour and the development of constructive attitudes and values on the part of students who, after all, are the focal point of the educational process. Development efforts should also emphasize the scientific and technological aspects of the curricula in a manner that coincides with the present and future requirements of the Jordanian society. Curriculum development will be achieved through cooperation with the various professional and educational bodies in the country, and particularly with the Centre of Curriculum Development and Teaching Aids at the Royal Scientific Society. This will be implemented through the following :

1. The continuous development and reform of the curricula of the elementary, preparatory, and secondary levels of education, gearing them towards the practical and scientific aspects of education and implanting positive attitudes towards manual labour.

2. The continuous development of textbook writing and production in a manner that would hold the

students' interest and meet their psychological needs and mental abilities.

3. Stressing the teaching of science and mathematics at all levels, with special emphasis on the technological and practical aspects of these two subjects.

4. Providing the schools with science laboratories and modern teaching aids for all subjects.

5. The application of modern educational methods of teaching, thus helping students to acquire objectivity and scientific way of thinking.

d. Implementing the following basic policy principles in the re-organization of secondary education :

   1. Checking the expansion of secondary education in puplic and private schools through admitting to the first secondary class (tenth grade) a decreasing rate of students who have completed the preparatory school, aiming at 50% in 1980 - 1981. The following table shows the projected admission percentages in the first secondary class during the period 1970 - 1980.

Academic year	Percentage of total number of schools	Percentage of Ministry of Education schools	Percentage of Unaccepted students
1970-1971	77	65	23
1971-1972	74	62	26
1972-1973	71	59	29
1973-1974	68	57	32
1974-1975	65	55	35
1975-1976	62	53	38
1976-1977	59	51	41
1977-1978	56	49	44
1978-1979	54	47	46
1979-1980	52	45	48
1980-1981	50	43	50

2. Expanding the rate of admission to the first vocational secondary class, from 8.7% in 1971 - 1972 to 10% in 1972 - 1973, 12% in 1973 - 1974 and 15% in 1974 - 1975, and eventually to 30% by 1980 - 1981.

3. Introducing fundamental changes in the structure of vocational education for boys so as to enhance the relative importance of industrial education in comparison with other types of vocational education ; also, introducing vocational education for girls, in addition to the existing commercial education programme for girls.

e. Improving the quality of education in every way that would increase the effectiveness of the educative process. Required action includes :

1. Teachers : Increasing the number of professionally qualified teachers at the compulsory and secondary levels and teachers colleges, and providing those employed by them with professional certification.

2. School Buildings: Constructing a number of school buildings with the required playgrounds, in the light of studies being conducted, and providing sites necessary for school construction during the next decade, particularly as the prices of land are continuously rising. Any delay in acquiring the required sites will burden the government with additional future costs.

3. Educational Technology, Supervision and Administration: Educational television and the school broadcasting programmes, laboratories and teaching aids have to be applied on a wider basis than is presently practised. A programme for raising the standards of supervisors ought to be implemented and some teachers should be given the opportunity to take courses in education as a means of strengthening the educational supervision and management staff.

f. The expansion of adult education and functional literacy campaign programmes, particularly among the illiterate industrial labour force in view of its positive effects on the development of skills and attitudes towards work and responsibility.

3. Projects:

a. Teachers Certification Institute:

This project aims at training the professionally unqualified teachers of the compulsory stage in order to raise their academic and professional educational standards to the level of the graduates of teachers colleges (two years after the secondary stage). The Institute will train unqualified teachers currently employed, whose number is about 5,300 men and women teachers. It will also train about 2,000 women teachers with a secondary education background who are expected to be employed in the course of the next ten years. The project, which was launched in the summer of 1971, is jointly implemented by the Jordan Government and UNICEF. Costs are estimated at JD 519,000 and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
UNICEF Contribution	87	70	77	234
Government Contribution	110	85	90	285
Total	197	155	167	519

b. Teachers Training College - Salt :

The Ministry of Education needs no less than 1,200 new teachers annually, while the existing teachers colleges graduate only 400 teachers a year. This situation calls for increasing the number of certified teachers who hold the Teachers College Certificate. Accordingly, it is proposed that a two-year post-secondary teachers college be established at Salt. The college will help solve the problem, by accommodating 700 men and women teachers, of whom 350 teachers will graduate annually and teach in the schools of the compulsory stage.

The project will be partially financed by a loan from IDA, and its construction will take a period of three years. It will commence teaching in 1975 - 1976. Costs, including land appropriation, construction, equipment and furniture, are estimated at JD 793,000 (in addition to JD 5,000 donated by IDA), distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Loan from IDA (buildings and equipment)	70	142	320	532
Government budget	21	100	140	261
Total	91	242	460	793

c. Division of Training Teachers of Agriculture in Shobak :

The teachers of agricultural activity of the preparatory stage are not professionally qualified to teach in this area. Thus, the project aims at training the teachers of agriculture in an agricultural teachers training section to be established in the Agricultural Secondary School of Shobak. The duration of study will be two years, and the section will have an enrollment capacity of 60 students, of whom 30 will graduate annually. Costs are estimated at JD 67,000, part of which will be financed by a loan from IDA, in addition to JD 6,000 to be granted by USAID to finance scholarships. Costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	10	15	19	44
Government budget	5	5	13	23
Total	15	20	32	67

d. School Buildings in Cities :

1. In view of the fact that approximately 60% of total school buildings in cities are rented and were not originally designed to be schools (which renders them inappropriate for educational purposes), and in view

of the sizeable sums paid by the Government as rent, it becomes necessary to construct school buildings as a solution to this problem. The project aims at constructing buildings for 18 elementary, preparatory and secondary schools, each comprising 20 class and administrative rooms and other facilities. Costs are estimated at JD 720,000, of which 50% will be contributed by municipal councils. The number of schools to be constructed will be distributed as follows :

	1973	1974	1975	Total
Elementary Schools	2	2	2	6
Preparatory Schools	2	2	2	6
Secondary Schools	2	2	2	6
Total Schools	6	6	6	18
Costs (financed from the budget and municipal councils) (JD 000's)	240	240	240	720

2. Currently, village councils and small local rural communities either fully meet the cost of constructing school buildings in their villages, or finance them partially in cooperation with the Government, through the latter's contribution of 50% of the annual installments of loans given to village councils. Accordingly, urban municipal councils should get loans for the construction of schools. The Government would then be willing to contribute 50% of the annual installment, provided that such school buildings be registered as state property, following the payment of all installments .

e. Provision of School Sites in Cities :

The Government will take all necessary measures for the construction of school buildings in cities during the next ten years. Such measures will include the following :

1. Allocating appropriate state-owned land in cities for that purpose.
2. Asking the municipalities to participate in the provision of suitable land.
3. Appropriating some land by installments, for which JD 450,000 will be allocated over the Plan period, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget	100	150	200	450

f. Two Comprehensive Secondary Schools :

The comprehensive secondary school is a pilot project for establishing balanced secondary education providing both academic and vocational education within the same school. The experience of other countries in this field indicates that its costs are lower than those of the present system, which is based on the establishment of separate academic and vocational schools. In order to experiment with the comprehensive school system, the Plan calls for the establishment of two such schools in Amman, one for boys and the other for girls, with an enrollment capacity of 1,000 students in each. The curriculum of each school will include scientific, literary and vocational courses so as to prepare students both for academic and for practical life at the same time.

Costs of the project are estimated at JD 728,000, part of which will be financed by a loan from IDA and the remainder by the Government, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	90	100	253	443
Government budget	20	100	103	223
Costs of Scholarships and Experts (Financed by IDA Loan)	12	25	25	62
Total	122	225	381	728

g. Providing Secondary Schools with Laboratory Equipment and Teaching Aids :

In view of the necessity for emphasizing the scientific and technological aspects of education, modernizing curricula and providing the schools with modern laboratory equipment become an indispensable need. Accordingly, this project aims at supplying secondary schools with modern laboratories and teaching aids. Costs, estimated at JD 525,000, will be financed from foreign technical assistance and are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Technical Assistance	150	150	150	450
Government budget	25	25	25	75
Total	175	175	175	525

h. Establishing Industrial and Commercial Vocational School for Boys.

In order to achieve the goal of expanding vocational secondary education, particularly industrial education, and to accommodate the increasing number of students receiving vocational secondary education, it becomes imperative to establish additional vocational schools. The project aims at constructing four industrial vocational schools and one commercial school; two of the industrial schools may be established by the Czechoslovak Government in return for Jordanian phosphates. Costs are estimated at JD 780,000 to be financed from the allocations of the General Budget and of private establishments as follows :

(in JD 000's)

	1973	1974	1975	Total
General Budget	150	180	300	630
Contribution of Private Economic Establishments	50	50	50	150
Total	200	230	350	780

i. The Agricultural School at Wadi Yabes :

The Agricultural Secondary School at Wadi Yabes is considered a vital project in relation to the development plan in the Ghor area. The project aims at creating the trained manpower required for the development of the agricultural sector in the Ghor regions, in addition to preparing technical personnel who are capable of follow-up and application of science and technology in agriculture. Moreover, it will provide training opportunities for agricultural workers so as to enable them to use modern agricultural methods and techniques that aim at increasing agricultural productivity and raising the standard of living of the people.

The duration of study is three years after the completion of the ninth grade. The enrollment of the school is 200 students. A farm of about 250 dunums, containing sections of animal husbandry and agricultural industry, together with workshops, will be attached to the school.

The cost of the project is estimated at JD 280,000, to be financed jointly by the Government and foreign technical assistance :

(in JD 000's)

	1973	1974	1975	Total
Government and Foreign Assistance	80	100	100	280

j. Polytechnic Institute and Trade Training Centre

Manpower surveys recently conducted in Jordan indicate that there is a pressing need for technicians and skilled labourers in the sectors of industry and mining, electricity transportation, construction and telecommunications, in addition to the need of the Ministry of Education for teachers of industrial education in the preparatory schools. Cnsequently, it is proposed that a polytechnic institute and trade training centre be established at Marka.

1. Polytechnic :

The period of study in the institute will be two years after the secondary stage. The institute will admit graduates of secondary industrial schools and the scientific sections of the academic schools. The total enrollment will be 460. It will graduate technicians at the level of assistant engineers and technical supervisors, and provide training for vocational education teachers. The courses of the institute will cover civil engineering and surveying, architecture, mechanical engineering, electrical engineering and laboratory techniques.

2. Trade Training Centre :

The period of training in the trade training centre will range from 6 to 18 months, depending on the nature of trade taught. The Centre will admit students who have finished the ninth grade. Its enrollment will be 250. The centre will also organize evening training courses for already employed workers. Training will cover machine operation, moulding and foundry, pattern and wood work, sheet metal and pipe work, plant maintenance, refrigeration and air conditioning mechanics, instrument maintenance and repair mechanics, electrical cable and wire work, automotive works, shuttering, reinforced concrete and building work.

Costs of the institute and the centre are estimated at JD 2.051 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	300	300	432	1032
Jordan Government Contribution	85	150	150	385
British Government Contribution	10	130	137	277
UNDP Contribution	30	150	177	357
Total	425	730	896	2,051

The IDA loan and the contribution of the Jordan Government will finance construction activities, the purchase and installation of machinery and equipment, and consultant engineering services related to designing and supervising the implementation of the project. The contributions of the British Government and UNDP will be used to provide experts and finance scholarships.

k. Women's Crafts and Commercial Schools :

The increasing participation of Jordanian women in economic and social activities and their entry into various fields of work necessitate the provision of training opportunities for women in various crafts and commercial professions for women through the establishment of one women's crafts secondary school and another commercial secondary school, each accommodating 300 students.

Costs, estimated at JD 200,000, will be financed from the Budget and foreign technical assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Women's Crafts School	—	150	—	150
Commercial School for Women	—	—	50	50
Total	—	150	50	200

SUMMARY OF EDUCATION PROJECTS

(in JD 000's)

Projects :	1973	1974	1975	Total
1. Teachers Certification Institute	197	155	167	519
2. Teachers College/Salt	91	242	460	793
3. Division of Training Teachers of Agriculture in Shobak	15	20	32	67
4. School Buildings in Cities	240	240	240	720
5. Purchase of School Land Buildings in Cities	100	150	200	450
6. The Two Comprehensive Schools	122	225	381	728
7. Providing Secondary Schools with Laboratory Equipment	175	175	175	525
8. Establishing Vocational, Industrial and Commercial Schools	200	230	350	780
9. Wadi Yabis Agriculture School	80	100	100	280
10. The Polytechnic Institute and the Trade Training Centre	425	730	896	2051
11. Women's Crafts and Commercial Schools	—	150	50	200
Total	1645	2417	3051	7113
Expected Private Investments	300	300	400	1000
Grand Total	1945	2717	3451	8113

B. THE UNIVERSITY OF JORDAN

1. Characteristics and Problems

During the past ten years, the University of Jordan has grown rapidly in terms of enrollment and faculties. The number of students increased from 167 in 1962 to 3,030 in 1972, and the University currently comprises five faculties : the Faculty of Arts, the Faculty of Economics and Commerce, the Faculty of Science, the Faculty of Sharia and the Faculty of Medicine.

The number of students enrolled in the University of Jordan constitutes 10% of the total number of students in higher education (about 30,000). Statistics show that of these, 16.1% study in the various institutes of higher education in Jordan, 68.9% study in other Arab countries and 15% in foreign countries.

On the other hand, 20.3% of Jordanian students in other Arab countries specialize in science and technology, and 79.7% (13,956 students) study arts and the humanities, most of them as external students.

At present, the University of Jordan faces the following problems :

a. Coordinating between its academic activities and needs for higher manpower requirements.

b. Creating a balance between the University's academic and educational activities on the one hand, and the necessary scientific research of which the University has to do the greatest part.

c. The shortage of full-time teaching staff in the various fields of study at the University.

Goals, Organizational and Policy Measures

a. Emphasizing the quality of education and giving it priority over quantitative expansion.

b. Effectively participating in raising the scientific and technological levels in the Kingdom through :

   1. Paying sufficient attention to scientific research, activating it, providing incentives for researchers and extending all necessary facilities to them in coordination and cooperation with the Royal Scientific Society and other scientific research bodies.

   2. Starting post-graduate studies in the different departments of the Faculty of Science, especially those which help in the exploitation of natural resources, and in some departments of the Faculty of Arts and the Faculty of Economics and Commerce, as conforms with development requirements.

   3. Conducting exploratory scientific studies in order to determine new fields to which the University can contribute, in the interest of a better society.

c. Continuing the execution of the plan which aims at improving medical services in Jordan by means of :

   1. Completing the construction of the Faculty of Medicine, providing the necessary buildings and equipment and recruiting the necessary teaching staff.

   2. Establishing a Faculty of Nursing in order to meet the Kingdom's needs for qualified male and female nurses.

d. Establishing a Faculty of Agriculture to contribute towards the preparation of trained manpower in the field of agriculture and conducting research directly related to agriculture in Jordan.

e. Satisfying the annual needs of the Ministry of Education for certified teachers and participating in the professional certification of employed teachers. Preliminary estimates indicate that, during the Plan years, the Ministry of Education needs 1,200 university trained teachers in the various fields of specializations and that 900 teachers and 150 administrators have to be professionally certified. The fulfillment of these requirements will be accomplished by:

   1. Expanding the different departments of the Faculty of Science in order to supply teachers in the various scientific branches.

   2. Expanding some of the departments of the Faculty of Arts in order to prepare teachers, especially teachers of English.

   3. Expanding the post-graduate programme of the Department of Education and Psychology to include one more academic year, at the end of which students are awarded diplomas in education, and expanding the M.A. degree programme.

f. Participating in the development of training institutes in the fields of public administration, cooperative, social service, banking, statistics, teaching and others. Also, assisting in formulating programmes and plans, in cooperation with the National Planning Council and other bodies concerned, to determine the affiliation of these institutes to other bodies, and the nature and level of the training provided by them.

g. Adopting necessary measures for supplementing the financial resources of the University by:

   1. Increasing the Government's Budget annual donation.

   2. Increasing fees.

3. Establishing a special fund for collecting voluntary local and foreign contributions and utilizing it in a manner that insures a steady income for the University.

h. Increasing the number of scholarships as a step towards providing the teaching staff required for the University.

i. Following-up on the activities of the graduates of the University to find out what jobs they are engaged in and to what extent these jobs conform with their fields of specialization.

3. Projects

a. Post-Graduate Studies and Scientific Research in the Faculty of Science

This represents the second stage of the project aimed at developing the Faculty of Science, jointly financed by the Jordan Government and UNDP. The first stage of the project was concerned with developing the Faculty at B.Sc. level. The goals of the second stage are :

1. Establishing a programme of higher studies and scientific research in the Faculty.
2. Participating in agricultural and industrial development through the preparation of specialists and the conducting of scientific research by the University faculties.
3. Participating in supplying the secondary schools and teachers training colleges with science teachers.

The UNDP will provide experts, scholarships and some apparatus and equipment. The University of Jordan will contribute administrative services, land, buildings, laboratory apparatus and some technical items. Costs are estimated at JD 1.088 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
UNDP Contribution	134	131	131	396
University Contribution	235	357	100	692
Total	369	488	231	1088

b. Faculty of Medicine

The Faculty of Medicine was inaugurated at the beginning of the academic year 1971-1972. Students of the Faculty will spend the first two years in the Faculty of Science, then will move to the Faculty of Medicine as from the academic year 1973-1974.

The project aims at preparing medical doctors, conducting applied research, holding training sessions and seminars which deal with specific medical problems and participating in training medical technicians and nurses. The estimated cost of establishing the Faculty of Medicine is JD 556,000 over the Plan period, part of which is expected to be financed by UNDP. Costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
University budget and UNDP	322	106	128	556

c. Faculty of Nursing

Jordan suffers from a severe shortage of qualified nurses in all aspects of medical services and in the number of qualified teachers in nursing schools. There is, in addition, a continuous need for training sessions to raise the standard of the nursing profession. Accordingly, the establishment of a Faculty of Nursing in the University is proposed. The Faculty will start teaching as from the academic year

1972-1973. Costs of this project over the Plan period are estimated at JD 117,000, to be provided from the budget of the University. Bilateral assistance for this project is expected. The costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
University budget and Foreign Assistance	83	13	21	117

d. Faculty of Agriculture

This project aims at contributing to the development of the agricultural sector and the improvement of the standard of agricultural production in the Kingdom, through preparing and graduating high-level workers trained under local Jordan conditions. This Faculty aims as well at conducting scientific research which will help in solving problems and raising the standard of production and modernizing agriculture. It will start operating in 1973. Students of this Faculty will be enrolled in the Faculty of Science for their first year of study. In implementing the project, the University will benefit from available facilities in the Kingdom, especially the agricultural stations of the Ministry of Agriculture. Costs of the project during the Plan period are estimated at JD 260,000, to be financed from the University budget and international and bilateral assistance, to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
University budget and Foreign Assistance	30	80	150	260

e. Student Activities Building

The University presently lacks the facilities for extra-curricular student activities. Consequently, this project aims at constructing a building for student activities, which will include in-door playgrounds and a bookshop which will supply their requirements for books, stationery and other articles.

Costs are estimated at JD 190,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
University budget	80	80	30	190

f. Oceanographic Station at Aqaba

This project aims at establishing an oceanographic station at Aqaba, attached to the Department of Biology in the Faculty of Science, with the purpose of conducting studies on plant and animal resources in the Aqaba Gulf and constructing industrial fishing pools. This project is particularly significant for economic, tourist and scientific purposes.

Costs of the projects are estimated at JD 30,000, part of which will be financed from foreign assistance expected to be extended by the Government of the Federal Republic of Germany. Costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
University budget and German Assistance	10	10	10	30

SUMMARY OF UNIVERSITY OF JORDAN PROJECTS

(in JD 000's)

Projects :	1973	1974	1975	Total
1. Higher Studies and Scientific Research	369	488	231	1088
2. Faculty of Medicine	322	106	128	556
3. Faculty of Nursing	83	13	21	117
4. Faculty of Agriculture	30	80	150	260
5. Students Activities Building	80	80	30	190
6. Oceanographic Station at Aqaba	10	10	10	30
Total	894	777	570	2241

C. THE YOUTH WELFARE ORGANIZATION

1. Characteristics and Problems

In terms of population, Jordan is a country of young people. Fully 64.9% of the population are under 24 years of age. If we exclude the age-group of those who are under four, the 4-24 year group constitutes 45.9% of the total population. Naturally, the youth of Jordan fall within this category, but their proportion to the rest of the group cannot be exactly determined, as this depends on our definition of the term. Whichever definition is adopted, the task is a tremendous one, not only in terms of providing education and employment opportunities, but also in areas of recreational, cultural, social and professional training, quite apart from the task of channelling the potentialities of youth into the socio-economic development of the country. Unless all these opportunities are offered to the youth of Jordan, the problem will persist, and Jordan will sooner or later have to face a youth rebellion similar to that which has recently plagued many parts of the world.

Youth problems in Jordan are numerous, and the Youth Welfare Organization is participating in laying out the principles and paving the way for the solution of these problems.

Among the most outstanding problems are the following:

a. In the Social and Cultural Fields:

The youth of Jordan suffer from having to live in a social and cultural vacuum. The school can no longer provide the social and cultural needs of the youth. Owing to the lack of proper guidance towards opportunities for such activities outside the school, some young people fall an easy prey to certain social activities and cultural influences which add to their frustration.

b. In Recreational Activities:

Owing to the scarcity of suitable playground (and the complete lack of them in some areas of the country), young people in Jordan face many problems. In the absence of adequate facilities, it is difficult to instill in the youth a spirit of true sportsmanship or guide them towards constructive recreational activities.

c. In the Fields of Construction and Work :

The youth of Jordan lack the spirit of co-operation required for constructive work and socio - economic development. This phenomenon could undermine the feeling of belonging to the country. This is attributable to the lack of vocational skills for participation in development among the youth of the country and the absence of a responsible body to cater for this need in Jordan.

2. Goals and Organizational Measures

a. Giving the youth the opportunity to participate in various social and cultural activities and guiding them culturally and socially, by means of :

   1. Increasing the number of youth centres supervised by the Youth Welfare Organization, and improving those already in existence.

   2. The undertaking by the Youth Welfare Organization, in cooperation with the Ministry of Education and the Ministry of Culture and Information, of the responsibility of guiding the youth culturally and socially, through the available mass media.

b. Coordinating the various sports and group recreational activities and utilizing the leisure time of the youth in similar activities through the following measures :

   1. Supervision by the Youth Welfare Organization of the construction of suitable playgrounds in the compulsory and secondary schools, and the renovation of

existing ones, in cooperation with the Ministry of Education, provided that the students will undertake the largest part of the required manual labour and the schools will defray part of the expenses from school funds.

2. Establishing a physical education institute for the preparation of teachers of physical education in the compulsory and secondary schools of the Ministry of Education and all other agencies concerned. Also, providing physical education coaches and supervisors and youth teachers needed for the various branches of the Youth Welfare Organization and for the sports clubs in Jordan.

c. Encouraging exchange visits between the youth of Jordan and those of other countries and attracting the youth of Jordan and elsewhere to visit Aqaba, by making Aqaba one of the major centres for youth sports and for social and cultural festivals. For the achievement of this goal a compound needs to be constructed in Aqaba to receive Jordanian and foreign youth.

d. Organizing the involvement of the youth in constructive activities in development projects ; providing opportunities for the vocational training of the youth by utilizing their leisure time, particularly those who are unemployed or those employed but unqualified professionally ; coordinating the activities of the Youth Welfare Organization in the field of vocational training with those carried out by the Ministry of Education and the Ministry of Social Affairs and Labour, within the framework of a National Vocational Scheme ; diversifying training so as to conform with available employment opportunities ; and looking after those who become trained.

3. Projects

a. Youth Compound in Aqaba

The considerations that necessitate the implementation of this project, which will be in stages that may last longer than the Plan period, are as follows :

1. Supporting the recreational, cultural and social youth activities, and organizing sports festivals involving Jordanian and foreign youth.
2. Providing a suitable centre in which the youth will be accommodated in Aqaba and equipping it with various recreational, cultural and social facilities.
3. Attracting foreign youth to visit Aqaba, through the provision of tasteful facilities and inexpensive services.
4. Encouraging internal and external tourism.
5. Promoting water sports.

This project includes the construction of sleeping units, a cafeteria and playgrounds for various sports. The youth should be involved in the construction work and preparation of the site.

Costs of the project are estimated at JD 210,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget	70	70	70	210

b. Physical Education Institute

The overwhelming majority of schools in Jordan suffer from a shortage of qualified physical education teachers. The two main sources for the recruitment of partially or fully qualified teachers of physical education are the higher physical education institutes in Egypt (graduates of which are few in Jordan), and the teachers training colleges in Jordan, in which specialization in physical education is very limited. Moreover, this problem is aggravated by the fact that some of the qualified teachers leave to work abroad.

Studies already conducted indicate that during the next ten years, the total number of physical education teachers needed for schools operated by various agencies and by the Youth Welfare Organization and other institutions with similar concerns will add up to 2,000 teachers, of whom 1,198 will be male teachers.

The proposed institute will admit secondary school graduates who will be trained and taught for two years to be :

(i) Physical education teachers for the compulsory and secondary levels in all schools in Jordan.

(ii) Physical education coaches, supervisors and youth leaders for the branches of the Youth Welfare Organization, sports and social clubs in the Kingdom.

(iii) Physical education coaches and supervisors for the Armed Forces.

The project aims at utilizing the existing and projected facilities of Hussein Sports City for Youth for educational purposes.

For the fulfillment of this project, coordination with the University of Jordan and the Ministry of Education is necessary.

Costs of the project are estimated at JD 140,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget	15	35	90	140

c. Construction of Sports Playgrounds in Schools

In 1970-1971 there were 604 preparatory and 120 secondary schools in the East Bank of the Kingdom. Of these, 57 schools had football fields and 91 had basketball grounds. Some of the existing playgrounds need renovation in order to enable the schools to extend their role beyond the development of the mental and intellectual capacities of the child and into the area of promoting the growth and physical fitness of the school child. This highlights the urgent need to construct modern play - grounds for the various sports and to renovate those now in existence.

This project aims at starting with a first stage during the Plan period, by renovating basketball grounds in some girls' schools and basketball and football grounds in some boys' schools, wherever space is available. The execution of this project under the supervision of the Youth Welfare Organization, in coordination with the Ministry of Education, necessitates the participation of students and school children in the reconstruction of these playgrounds during summer vacations and any other holidays.

Every school should also contribute to the project expenses from the school fund.

The cost of this project is estimated at JD 150,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget	50	50	50	150

d. **Youth Vocational Training Centres**

This project aims at establishing two such centres in Amman and Zerka during the Plan period, in cooperation with the Ministry of Education and the Ministry of Social Affairs and in conformity with the National Vocational Scheme. These centres will be pilot projects, and, if they prove to be successful, others will be established in various areas. To guarantee sound operation in these centres, the technical advice of the Ministry of Education will be sought and if necessary the Ministry will be asked to provide vocational teachers. The in - take of each training course will be forty trainees.

1. The first centre, to be located in Amman, will train the participants in construction work, various trades and auto - mechanics. Trainees will be taught the basic principles of their chosen trades and will devote 90% of their time to practical training.

2. The second centre, to be located in Zerka, will concentrate on plumbing and electrical installation.

   Total costs of the project are estimated at JD 60,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government budget and UNICEF	30	30	—	60

SUMMARY OF YOUTH WELFARE ORGANIZATION PROJECTS

(in JD 000's)

	Projects	1973	1974	1975	Total
1.	Youth Compound in Aqaba	70	70	70	210
2.	Higher Physical Education Institute	15	35	90	140
3.	Sports Playgrounds in Schools	50	50	50	150
4.	Vocational Training Centres	30	30	—	60
	Total	165	185	210	560

SUMMARY OF EDUCATION AND YOUTH WELFARE PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Ministry of Education	1945	2717	3451	8113
2.	University of Jordan	894	777	570	2241
3.	Youth Welfare Organization	165	185	210	560
	Total	3004	3679	4231	10914

12. HEALTH

Health services have two major functions. The first is the provision of preventive services in order to maintain and promote the health of the citizens; this is achieved by controlling diseases and epidemics, expanding the scope of health-care and providing health education. The second function is the provision of curative services which aim at taking care of the individual and making treatment available to him. Preventive and curative health services are provided by both the Government and the private sector.

Both preventive and curative services have been expanded substantially during the last few years. Some infectious diseases have been eradicated, and others have been brought under control as a result of extensive expansion in preventive measures, particularly in the preparation and administration of various kinds of vaccinations and ammunizations to the majority of the people. Existing hospitals have been expanded and provided with various specialists and equipment. Two new hospitals have been constructed, with a total bed-capacity of 1,200 for both. They are provided with the most modern equipment and facilities. These hospitals are:

a) Al-Hussein Medical City

b) Amman Civil Hospital

2. Characteristics and Problems

a) Discrepancies in the quality and distribution of health services in respect to urban, rural and desert areas.

b) Shortage in the number of available specialists and technicians, such as nurses, midwives, practical nurses and other medical auxiliaries.

c) Duplication of curative services rendered by various official institutions, which usually co-exist in the same locality and render similar services. In many cases, none of these institutions is self-sufficient in terms of skills and facilities.

d) Inadequate coordination between the state medical services and those of the private sector, including those of UNRWA and charitable societies. This may result in the existence of more than one clinic in the same locality. The same patient may seek medical advice from more than one clinic for the same illness.

e) Inadequate control of drug quality and cost that would ensure the supply of high-quality drug at reasonable cost.

f) Inability to keep pace with the latest technical developments in institutional health care.

g) Lack of the proper orientation for the public as to the best means of utilizing avialable medical services.

3. Goals and Organizational and Policy Measures

a) The provision of the highest possible quality of health and medical services to the public, with the least cost and the best methods.

b) The utilization of Government hospitals to render the maximum possible services, through the provision of a capable and modern administration and the needed specialists and technical personnel.

c) Coordination of the work of different health bodies (Ministry of Health, Directorate of Health Services of the Armed Forces, UNRWA and private practice) through the Higher Health Council, in order to prevent duplication, ensure comprehensive planning and provision of services, improve and upgrade the quality of health services and make them available in urban, rural and desert areas.

d) The establishment of a "Curative Medicine Institute", having as its nucleus the Department of Curative Medicine in the Ministry of Health. This Institution should be capable of accommodating within its framework any other sectors. The Institution should plan to provide medical services of a good standard at the lowest cost. It should also look into the possibility of making use of the services of private physicians.

e) Keeping the above provision in mind, the presently applied Health Insurance Scheme should be further developed in order to improve the quality of curative services. It should also charge fees proportional to the standard of services rendered and to the income of the beneficiaries. Non-participants in this scheme should pay fully for the services rendered to them.

f) The provision of incentives and benefits that would encourage Jordanians working in the medical field to remain in Jordan, thus putting an end to the medical brain-drain.

g) Improving the technical, administrative and professional standards of those working in the medical field, through providing training facilities in the different fields of specialization, both within Jordan and abroad.

h) Supporting the efforts aimed at encouraging applicants to join the professions of nursing and midwifery, and also offering material and moral incentives to such groups.

i) Intensifying control over drugs with regard to both quality and cost, through continuous efforts towards quality control and price reduction with the incidental aim of saving hard currency for the country.

j) Modernizing health legislation in order to define the duties of the Ministry of Health, its objectives and its relationship with other official bodies, with the purpose of making the Ministry responsible for all aspects of preventive medicine.

4. Projects

a) Establishment of a Training Institute for Auxiliary Medical Personnel

Due to extensive expansion in the field of health services and to the shortage of professional personnel, it is suggested that an Institute be established to train professional assistants in the fields of laboratory work, X-ray, physiotherapy, anesthesia, sanitation and pharmacy. The duration of the course will be two years. The cost of the project during the three years of the Plan is estimated at JD 100,000 to be financed from the Government budget and foreign assistance. Cost is distributed as follows :

(in JD 000's)

1973	1974	1975	Total
20	40	40	100

b) Construction of a Hospital for Mental Diseases

The present Hospital for Mental Diseases is housed in an unsuitable rented building in a residential area in Amman. Thus, it is proposed to construct a 100-bed hospital in a suitable location.

Cost, estimated at JD 350,000, will be financed from the Government budget and foreign assistance. It is distributed as follows :

(in JD 000's)

1973	1974	1975	Total
150	100	100	350

c) Construction of Residential Quarters for Nurses

It is proposed to construct four residences for nurses, one for each of the following hospitals :

1. Amman Civil Hospital
2. El-Hussein Hospital, Salt
3. Government Hospital, Zerka
4. Princess Basma Hospital, Irbid

Cost; estimated at JD 340,000, will be financed from the Government budget. It is distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Civil Hospital	—	—	150	150
El-Hussein Hospital, Salt	—	50	—	50
Government Hospital, Zerka	—	50	—	50
Princess Basma Hospital, Irbid	—	—	90	90
Total	—	100	240	340

d) Establishments of Health Centres

This project aims at providing health services for populated areas located far from hospitals. It is proposed to establish three centres, in addition to the two centres proposed in the comprehensive pilot development project of the rural areas. Costs, estimated at JD 90,000, will be financed from the Government budget. It is distributed as follows :

(in JD 000's)

1973	1974	1975	Total
30	30	30	90

SUMMARY OF HEALTH PROJECTS

(in JD 000's)

	1973	1974	1975	Total
1. Medical Auxiliary Training Institute	20	40	40	100
2. Mental Diseases Hospital	150	100	100	350
3. Residential Quarters for Nurses	—	100	240	340
4. Three Health Centres	30	30	30	90
Total	200	270	410	880
Estimated Investment of the Private Sector in establishing Clinics and Hospitals	200	200	200	600
GRAND TOTAL	400	470	610	1480

13. SOCIAL WELFARE, LABOUR AND COOPERATIVES

This sector aims at organizing and promoting the potential capabilities of all citizens, through providing them with appropriate social care and opportunities which will enable them to help themselves and serve their society. It also aims at propagating the cooperative spirit among the citizens, increasing their awareness of the cooperative movement and organizing them in cooperative and social societies which help develop local communities and provide citizens with social and economic services. These goals emanate from the fact that man is the fundamental element in development, that the family is the basic unit of society and that the task of social care stems from the necessity of making this unit more capable of performing its role. This sector also aims at organizing labour associations and providing ways and means of increasing production through vocational training, the improvement of skills and creating a congenial atmosphere for mutual understanding and effective cooperation between workers and employers. It also aims at protecting the handicapped and providing them with the necessary training and care which would help them overcome their difficulties and adjust to a normal social environment, which in itself is also a prime concern of this sector.

A. SOCIAL WELFARE

1. General

Since the potentials and capabilities of the private sector are essential ingredients of social welfare, the Plan advocates the marshalling of these energies and the provision of ample opportunities to all citizens in order to participate in serving and developing their local communities, in accordance with an established social development policy compatible with the needs and requirements of society. The public sector complements this trend by concentrating its efforts on research, studies and social policies that help protect the citizens from delinquency, and deal with current social issues as well as social development within the framework of the development plans of the other sectors. The Plan also aims at providing facilities for training and preparing workers in the social sector.

In accordance with this policy, the Ministry of Social Affairs and Labour has registered and devised follow-up programmes to support 243 voluntary and private social welfare societies in urban areas and 85 in rural areas, with 20,000 members and 80,000 beneficiaries. These societies organize themselves into district unions which converge into one central union. The central and district unions cooperate with the Ministry in providing the citizens with social services. The Ministry has also established seven institutions for the welfare and protection of juveniles, two for the welfare and treatment of juvenile delinquents, three for educating and training the physically handicapped children (blind, deaf, dumb or paralyzed) and one for destitutes and homeless adults. The total annual number of young beneficiaries from institutional care is 1,000. In 1971, the Ministry offered a grant of JD 18,000 in cash to 723 families and provided aid in kind (from contributions by foreign voluntary societies registered by the Government of Jordan) to 22,000 citizens. The Ministry was also able to rehabilitate, vocationally and socially, 249 cases over and obove the physical rehabilitation of 67 cases.

2. Characteristics and Problems

a) The Jordanian society is passing through a period of rapid social change affecting the different aspects of life in all parts of the Kingdom. This has reflected itself in changing social relations, rapid population growth, massive migration from rural to urban centres and a greater dependence on the market economy.

b. Child care efforts are scattered among different agencies. These ought to be integrated and directed towards child care during the different stages of child development.

c. Rapid urban growth is not paralleled by growth in social facilities and centres. This has deprived citizens of all age groups from the facilities they need for a wholesome and productive utilization of their leisure time.

d. The lack of village planning and the absence of natural environment development, coupled with the lack of basic social facilities in the village home have delayed the development of the rural family and curtailed its participation in social and economic development.

e. The lack of precise information about social conditions has retarded the task of pinpointing social problems and revealing their true dimensions and has hindered the formulation of plants for dealing with these problems.

f. The fact that the various social establishments and institutions do not have a unified social policy has resulted in little coordination between them, especially in the public sector, and has impoverished the services rendered.

g. Social welfare programmes reach only a relatively small number of citizens, owing to the limited number of institutions with shelter and rehabilitation facilities.

h. The weakness of the technical staff in social welfare establishments is an important factor in hindering progress in the social sector.

i. The dearth of financial resources for a reasonable level of social services and the lack of coordination between the private and public sectors have hindered plans for social development.

Goals

a. Increasing the participation of the private sector in welfare activities and social services through organizing all available human and material resources. This could be brought about through proper social counselling with the purpose of helping the citizens to overcome their current problems, develop their local communities, and participate in the general development of the country.

b. Providing social welfare services to the different areas that need them, particularly to rural and desert areas. Through the collaboration of the private and the public sectors, the citizens could be organized into social groups that could launch social development projects which would meet the pressing needs of their areas. Such activities should grow out of the principle of self-help.

c. Increasing the capabilities of institutions that provide services to needy and disabled persons, and shifting their auspices gradually to the private sector.

d. Concentrating the efforts of both the private and the public sectors on vocational and professional training and providing assistance to those unfit for training.

e. Extending technical training, locally and abroad, to social workers in both the private and the public sectors in order to raise their performance level in the field of social and economic development.

f. Providing technical training to the Ministry staff in order to create an able and qualified body of social workers who could function in accordance with the requirements of social work, and in compliance with the demands of social development plans.

g. Providing the necessary equipment and facilities for research, investigation and social surveys in order to pinpoint and define social problems. This would lead to better remedies and more effective preventive measures in the services of social progress.

4. **Organizational and Policy Measures**

a. Appointing a higher council with the task of formulating the general policies of social development, to be used as planning guidelines. The council will inclulde representatives from the private sector and the ministries and agencies concerned.

b. Appointing a higher council for child care, equipped with an efficient technical and administrative staff and with adequate financing for its proper operation. The council would enact suitable legislation to guarantee the protection of children.

c. Conducting continuous studies and social surveys in collaboration with the Department of Statistics and strengthening social guidance services.

d. Establishing a section in the Ministry of Social Affairs and Labour to specialize in rural industries and handicrafts. This section should work to preserve and develop existing rural industries and handicrafts and provide suitable support for those working in them.

e. Utilizing the potentialities of the Jordan Institute of Social Work in the field of training and research for raising the technical level of public and private sector staff involved in social welfare. This requires allocating the necessary funds, extending support to the Institute and taking the necessary measures for attaching it to the University of Jordan.

f. Gradually shifting the auspices of the social welfare institutions from the public to the private sector. This could be achieved by forming specialized administrative boards with members from the private and the public sectors to supervise, finance, develop and administer these institutions.

g. Reinforcing social welfare institutes and voluntary organizations active in the field of social development, by supplying them with skilled personnel and the necessary equipment and by training those working in them in order to help them improve their capacities and carry out their responsibilities in compliance with the general policy of social development and in accordance with the following :

1. Doubling the capacity of the social welfare institutes.
2. Training and preparing leaders and workers in social welfare in both sectors.
3. Participating with up to 45% of the total cost of any development project by the private sector which complies with the social development policy and is approved by the Ministry of Social Affairs and Labour.

5. Projects

a. Increasing the Capacity of Existing Social Institutes and Schools

This project aims at providing sufficient building facilities in order to help social institutes increase their capacity and improve their services to the needy (the deaf, the dumb, the juvenile blind, juvenile delinquents, homeless children, motherless infants and those whose mothers are disabled or have no means of support).

Capital costs of this project are estimated at JD 200,000, to be financed from foreign assistance and the general budget, and distributed as follows :

(in JD 000's)

		1973	1974	1975	Total
1.	Al-Amal institute for the deaf and dumb	—	34	—	34
2.	Al-Nour institute for the juvenile blind	—	36	—	36
3.	The Reformatory	5	—	—	5
4.	Princess Basma Charitable Foundation / Childrens' home for girls-Amman	34	—	—	34
5.	Princess Muna Charitable Foundation/Childrens' home for girls-Zerka	—	—	22	22
6.	Princess Alia Charitable Foundation/Babies' home	35	—	—	35
7.	Confinement Reformatory	—	—	34	34
	Total	74	70	56	200

b. **Establishment of New Social Institutions**

This project aims at establishing new institutions that provide social, health and rehabilitation services for the crippled, the mentally retarded and the blind. These institutions will be directed by administrative boards consisting of members from the private and the public sectors.

Capital costs are estimated at JD 150,000, of which JD 50,000 will be spent on buildings, and will be financed from the general budget. The remaining JD 100,000 will be used for equipment and apparatus, to be financed from foreign assistance. Costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
1. Institute for the crippled	3	10	10	23
2. Institute for mentally retarded adults	—	6	6	12
3. Institute for blind adults	—	—	15	15
Total	3	16	31	50
Equipment	10	30	60	100
Grand Total	13	46	91	150

c. Social Service Centres

This project aims at establishing social centres in rural areas and city slums for the purpose of providing social counselling on family and child care, nutrition, educational awareness and handicraft development. It also aims at providing social and vocational training to enable the beneficiaries to start individual or collective enterprises that guarantee them productive jobs and steady incomes. In addition, it aims at conducting social surveys and studies for promoting and developing their services in accordance with the general development policy. It is proposed that four such centres be started, two in urban areas and two in rural areas.

Capital costs of these centres are estimated at JD 60,000, to be financed from the general budget, foreign assistance and the private sector and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
1. Social Service Centre for Women/Amman	10	—	—	10
2. Social Service Centre for Men/Zerka	—	20	—	20
3. Rural Social Service Centre for Women	10	—	—	10
4. Rural Social Service Centre for Men	—	—	20	20
Total	20	20	20	60

d. Rehabilitation of the Handicapped

This project aims at allocating and providing the necessary funds for rehabilitating those benefitting from institutional care and those physically, socially and economically handicapped, in order to help them become self-sufficient and productive members of society.

Capital costs are estimated at JD 90,000, of which JD 30,000 will be financed from the private sector, and JD 60,000 from the general budget as follows:

(in JD 000's)

	1973	1974	1975	Total
Budget	20	20	20	60
Private Sector	10	10	10	30
Total	30	30	30	90

e. Care and Protection of Children under 12

This project aims at looking after children's upbringing, nourishment and health. It is to start as a pilot project in rural areas and urban slums. It also aims at the establishment of four nursery schools in Amman, Irbid and Zerka and at encouraging the private sector to establish kindergartens all over the Kingdom and to strengthen the existing ones through supplying equipment and apparatus and providing training opportunities for those working in them. This project will be carried out under the supervision of the Higher Council for Child Care. Contacts between the Ministry and UNICEF concerning these projects have been made, and it has been provisionally agreed that UNICEF will contribute by financing the supply of equipment for existing and proposed kindergartens and nursery schools as well as training expenses.

Capital costs for this project are estimated at JD 200,000, of which JD 150,000 will be financed by UNICEF, JD 30,000 from the private sector, and the remaining JD 20,000 from the general budget, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Equipment & supplies for nurseries	25	50	25	100
Supplies for kindergartens	40	30	30	100
Total	65	80	55	200

f. Pilot Development Projects in Rural Areas

These projects aim at developing human and natural resources in a pilot manner within well-demarcated geographical areas that are relatively densely-populated. The average population in the centre of the area should range from 7,000 to 15,000 inhabitants, and each geographical area should comprise a number of local communities.

Projects for developing human and natural resources (community development) are based on two main principles : self-assistance and integrated development. The first principle means that the inhabitants of the areas should participate in the development process and contribute to its costs to the extent that their technical and financial potentialities allow. The Government will finance the deficit, provided that the policy adopted aims at diminishing the Government's financial participation and increasing the role of the inhabitants with the eventual goal of confining the government's assistance to technical aid for a specified period. Inhabitants of these areas will bear all other costs. The second principle of integrated development means participation in all facets of economic and social development for the purpose of enhancing family incomes and progressively raising the family's social level.

This pattern of pilot development requires the procurement of minimum financial, technical and administrative resources within the individual areas. These will serve as a basis for mobilizing local human and material capabilities and activating them in the direction of an automatic and voluntary achievement of development goals.

It is hereby proposed that two pilot centres be established. Each will have its own administrative, social, cooperative, educational, agricultural, health, engineering, and youth-care units, which will cooperate with the inhabitants on a progressive basis until the inhabitants themselves become capable of leading the drive towards development in the areas of the pilot centres.

Government participation in these two pilot centres will involve the provision of basic buildings and the necessary staff for all units. In order to ensure the proper climate for this experiment, it is proposed that a council be formed, chaired by the Minister of Social Affairs and Labour and composed of representatives from the public and private sectors. The council will be responsible for planning and supervision.

Costs are estimated at JD 610,000. The costs of the buildings for the two centres, estimated at JD 60,000, will be financed from the general budget. The remaining JD 550,000 will be financed from foreign assistance. Total costs are distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
General Budget	10	20	30	60
Foreign Assistance	50	200	300	550
Total	60	220	330	610

g. Foster Care Project

This project aims at encouraging and helping foster families to look after children of unknown parentage and those forced to leave their real homes and families. It also aims at reducing, as far as possible, the number of children placed under institutional care. Foster homes are better than institutions because they provide a home atmosphere and are generally less costly.

The costs of this project are estimated at JD 45,000, to be financed from the general budget and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
General Budget	10	15	20	45

SUMMARY OF SOCIAL PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Increasing the Capacity of Existing Social Institutions	74	70	56	200
2.	Establishment of New Social Institutions	13	46	91	150
3.	Social Service Centres in Cities and Rural Areas	20	20	20	60
4.	Rehabilitating the Handicapped	30	30	30	90
5.	Nurseries and Kindergartens	65	80	55	200
6.	Pilot Integrated Development Projects	60	220	330	610
7.	Foster Homes	10	15	20	45
	Total	272	481	602	1,355

B. LABOUR

One of the outstanding achievements of the Department of Labour in the Ministry of Social Affairs and Labour was the establishment of the Labour Education Institute in 1969. Since its establishment, the Institute has offered a large number of educational and training courses for improving and propagating labour education and enlightenment.

As a result of the application of the existing Labour Law and the awareness by both labourers and employers of the economic conditions of the country, cooperation between the two sectors has increased and industrial relations between them have been stabilized. The Department of Labour has also directed its attention to the problem of unemployment. It established an employment office to organize the employment of foreigners, find work for the unemployed, and participate in the training of labourers. However, the employment office faced many difficulties and obstacles which hindered the fulfillment of all its objectives.

The Department of Labour, in cooperation with labour unions, has organized union affairs and helped in improving the education of labourers, who were thus made aware of their role in national economic development and improved production on the company level.

2. Characteristics and Problems

a. The need for increasing the number of technical and skilled personnel in the fields of labour health, safety and research, as they pertain to employment, labour education, and professional training.

b. The need for new labour legislation providing for the establishment of labour courts to deal with labour issues, support and strengthen employment offices and develop the process of labour legislation to the point where it can meet the social and economic needs of the country.

c. The lack of information and statistical data about the movement of labourers from one place to another and from one sector to another within the country and abroad.

d. The inefficiency of vocational training services and the lack of well-trained technicians in the labour market.

e. The pressing need all over the Kingdom for employment offices and educational labour institutes and for the enlargement and improvement of existing ones in Amman.

3. Goals

a. Providing labour education and training opportunities in order to increase the educational and professional abilities of labourers and provide the professionally and vocationally skilled labourers required for development projects in all economic sectors.

b. Changing the attitude of labourers towards manual work and creating motives and incentives which will raise the status of manual labour and demonstrate its importance in increasing and improving production.

c. Providing social security to all labourers through cooperation between labourers, employers and other agencies, within the limitations of existing capabilities and potentialities.

d. Decreasing unemployment and matching men and jobs through employment offices which will provide information about the movement of labourers, their qualifications, their places of work, and then classify this information in order to give an exact overall picture of manpower in the country.

4. Organizational and Policy Measures

a. Instituting a social security system which will serve both labourers and employers. This should be done after conducting studies in economic, social, and related aspects, to ensure the establishment of the proper agency to implement the system in accordance with the economic and social capacities of the Kingdom. These studies should be conducted jointly by the Ministry of Social Affairs and Labour, the Ministry of National Economy and the National Planning Council.

b. Coordinating between the Department of Labour and the parties responsible for issuing licences to industrial and commercial enterprises, to ensure the application of the Labour Law and the by-laws which were enacted for the purpose of protecting the labourers' health and safety.

c. Strengthening the inspection system in the Department of Labour by providing it with technical and administrative skills ; also, strengthening the Employment Office in Amman and establishing employment offices in Zerka and Irbid. These offices will be entrusted with the task of keeping complete records on available job opportunities and their nature, and placing labourers who seek employment in the jobs that conform with their qualifications and experience. Placement of labourers in available vacancies should be carried out either through the employment offices or directly by the enterprises themselves, provided that they notify the office to that effect.

d. Raising the educational levels of labourers in order to increase their productivity and upgrade their performance. Therefore, it is proposed that the Labour Education Institute in Amman be strengthened by providing it with qualified lecturers and increasing the number of courses it offers. It is also proposed that two similar institutes be established in Irbid and Zerka, complete with a teaching and an administrative staff.

e. Urging the participation of the Ministry of Social Affairs and Labour, the Ministry of Education and the Youth Welfare Organization in preparing special programmes, within the framework of the national plan for vocational training, to provide labourers with vocational and professional training in order to raise their professional level and to meet the project requirements of the Plan.

Seventy percent of the training can be accomplished by the industrial and construction enterprises of the private sector. The remaining 30% will be done in training centres and institutes of the public sector in the following manner :

1. Industrial and construction enterprises will train the labourers in the various skills. The Government will pay nominal wages to trainees during their training period in accordance with the training programme.

2. Short but intensive training courses of three months or less will be held for the purpose of training semi-skilled labourers in the various skills and professions needed for the implementation of the plan.

3. Medium-length (six months) courses will be held for the purpose of training ordinary labourers in jobs and professions for which training is required.

It should be taken into consideration that training be arranged on a temporary basis in order to provide the necessary skills in the professions and crafts needed to carry out the projects required by the Plan. The courses should be adopted to the needs of various projects.

This can be achieved if the parties responsible for project implementation assess their labour requirements by profession, then recruit available labour with a view to training them in the respective skills or professions.

f. Supporting the labour unions for the purpose of enabling them to hold educational courses for their members and to provide opportunities for training and educating labour leaders. These leaders would then organize the labour movement in a manner that safeguards labour interests and fosters national productivity. The initial training of these leaders will have to be conducted in the labour ,education institutes of the public sector.

g. Looking after the affiars of Jordanian labourers working abroad, whose remittances to Jordan are one of the main sources of foreign exchange receipt, which help in supporting the Jordanian balance of payments. In order to look after the interest of these labourers, guarantee their rights, and enable them to benefit from the labour laws of the host countries, it is proposed that the Jordan Government concludes bilateral labour agreements with these countries and that Jordanian diplomatic missions there be asked to follow up the affairs of these labourers and help them in solving their problems and attaining their rights.

Capital costs of the programmes for training labourers are estimated at JD 100,000 to be financed from the general budget and foreign assistance and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Recurrent Expenditures				
1. Funds for training labourers in industrial and construction enterprises.	6	9	9	24
2. Funds for financing short-term training courses	35	45	40	120
3. Funds for financing medium-term courses	20	25	25	70
Total of Recurrent Expenditures	61	79	74	214
Capital Expenditures				
4. Equipment and Apparatus	40	30	30	100

SUMMARY OF LABOUR PROJECTS

(in JD 000's)

	1973	1974	1975	Total
Projects for Training Labourers	40	30	30	100

C. COOPERATIVES

The cooperative movement aims at organizing and recruiting individual potentials in the fields of production and services into collective potentials in order to increase production and improve the level of services. This demands changing the existing work pattern and relations into new and more organized cooperative relations which will enable citizens to improve their living conditions and participate in social and economic development. The cooperative movement in Jordan grew and evolved from being a government-sponsord activity into a private movement represented by the Jordanian Cooperative Organization. When established in 1968, the

Organization included the General Cooperative Union of Cooperatives, the Cooperative Auditing Union, the Cooperative Institute and the Cooperative Department of the Ministry of Social Affairs and Labour. Cooperatives extended their activities to the fields of agriculture, marketing, credit and thrifts, housing, household supplies, school savings, transportation, and some mutual benefits activities. The number of cooperatives reached 750, with a membership of 40,000 citizens. The 1967 June War had an adverse effect on cooperative activities. The West Bank cooperatives were put out of business and more than JD 500,000 in investment were frozen. In addition, cooperatives in the Ghor areas suffered significant setbacks.

2. Characteristics and Problems

a. Inefficiency of the staff charged with cooperative training, education, and supervision, coupled with diminishing loyalty, on the part of members, to cooperative societies; also, domination of personal interest in some cooperatives over the general interest.

b. Weak coordination between the Cooperative Organization and other Government agencies, leading to a poor level of technical assistance to cooperatives.

c. Meagreness of cooperative loans; hence their inability to rid farmers of their accumulated debts to middlemen and money-lenders.

d. Tendency, from the start, to restrict the movement to the area of loans (in agriculture) rather than move towards promoting agricultural collective work which aims at increasing production and decreasing cost.

3. Goals

a. The creation of cooperative enlightenment and awareness among all citizens, the propagation of education among members of cooperative societies and training them in the planning and implementation of cooperative projects.

b. Meeting the needs of all areas in the Kingdom for cooperatives of all kinds. This can be done by establishing new cooperatives, increasing the membership of existing ones, and amalgamating small cooperatives into bigger societies.

c. The dissemination of the cooperative work-style among the different sectors, with concentration on the following:

1. Production and marketing of agricultural products.
2. Small industries and handicrafts.
3. Social and economic services, including housing, consumers' commodities, credit and thrift, and others.

4. Organizational and Policy Measures

a. Establishment of a general cooperative policy which makes cooperatives an efficient tool for promoting economic and social development.

b. Spreading cooperative awareness among the citizens through introducing cooperative work as a co-curricular activity in Government schools at all levels, and insisting on its application in schools, youth centres and different labour and agricultural associations. This will need the utilization of all mass-media to widen and deepen cooperative awareness and understanding.

c. Evaluating the accomplishments of the cooperative movement and studying the best means of developing it. It is recommended here that a team of specialists in the field of cooperatives from outside the Jordan Cooperative Organization, assisted by a number of international experts of high standing, be entrusted with this task. The conclusions of the study will form the basis for providing the Cooperative Organization and other cooperatives with the necessary technical and administrative skills and for formulating and implementing a cooperative programme for the whole country.

d. Strengthening cooperative training and education. This measure aims at activating the Cooperative Institute and strengthening it with a staff capable of educating participants and training them in modern cooperative management methods. It also aims at providing cooperatives with trained personnel. To accomplish these objectives, it is necessary to provide the Institute with a sufficient number of lecturers and assistant lecturers to teach cooperative subjects, agricultural economics and accountancy.

e. Strengthening agricultural cooperatives and widening the scope of their activities. This measure aims at encouraging the establishment of agricultural cooperatives, especially in the Ghor areas, with priority given to multi-purpose cooperatives.

Efforts must be exerted to merge small cooperatives and provide seasonal and medium-term loans for all cooperatives in order to supplement their activities. Loans for this purpose are estimated at JD 1.2 million, to be financed from the assets of the Cooperative Organization and the Agricultural Credit Corporation.

f. Strengthening cooperative housing. This project aims at establishing cooperatives for housing and supplementing them with loans for constructing low-cost houses for their members. The suggested loans are estimated at JD 1.0 million, to be financed from the assets of the Housing Corporation, the Estate Bank and other local sources.

g. Strengthening employees' saving and credit cooperatives. The objective of this project is to encourage the creation of credit and thrift cooperatives for Government employees and for those working in private establishments. These cooperatives will extend easy-term loans to participants, encourage employees to save regularly, channel these savings into profitable investments and increase the volume of savings available for economic development.

h. Strengthening small industries and handicraft cooperatives. This project aims at establishing four cooperatives in the field of small industries, through organizing technicians and skilled labourers and providing them with technical facilities and loans. These loans are estimated at JD 100,000.

i. Encouraging the establishment of consumers cooperatives all over the Kingdom, especially in newly - established housing areas and in various rural areas, and providing them with the necessary loans.

SUMMARY OF SOCIAL WELFARE, LABOUR AND COOPERATIVES PROJECTS

(in JD 000's)

	1973	1974	1975	Total
A. Social Welfare	272	481	602	1355
B. Labour	40	30	30	100
Total	312	511	632	1455

14. HOUSING AND GOVERNMENT BUILDINGS

Jordan is facing a housing problem as a result of several factors. Among these is the expansion in the machinery of public services brought about by economic and social development. There has also been a steady migration from rural areas to the cities in search of employment and public services. In addition, natural population growth, together with conditions that prevailed in the area after 1948 and the eviction of citizens from the West Bank in 1967 have all contributed to a housing crisis and a rise in rents. Rural housing no longer meets the needs of modern living. All this calls for the coordination of public and private efforts in providing low-income groups with housing at a reasonable cost, and supplying ministries and Government departments with suitable buildings and adequate office facilities.

A. HOUSING

Prior to 1967, investments in housing were undertaken exclusively by the private sector. Investment in this field increased from JD 4.09 million in 1967 to JD 10.08 million in 1970, and building licenses were issued for an area of 186,400 m^2 in 1967, increasing to 329,200 m^2 in 1970.

The private sector could not, however, meet all housing requirements. The housing problem continued to grow as a result of the following factors:

a) Natural population growth at a rate of 3.1%.

b) Migration from rural areas to the cities and the eviction of citizens from the West Bank after the June 1967 War.

c) Social development, accelerating the increase in the number of new independent households. Marriages increased from 15,900 in 1966 to 18,400 in 1970.

Housing requirements in the Kingdom are estimated at about 19,000 units annually, 13,000 of which are for the East Bank. These requirements arise from the establishment of 12,000 new households annually, in addition to the combined requirement of bridging the gap created by past shortages and replacing inadequate houses, at a total rate of 7,000 units annually.

The Housing Corporation was established in 1965 to assist in meeting housing needs. During the period 1965-1972, the Corporation invested JD 2.6 million in housing, and carried out the following :

a) Individual long-term loans for housing purposes to 408 persons amounting to JD 840,000 at an interest rate of 5% annually.

b) Al-Hussein Housing Project in Amman for upper limited-income groups. This project comprised 182 units with a total area of 23,553m^2 , at a total cost of JD 750,000.

Work has also been started on six housing projects for the middle and the lower limited-income groups in Zerka, Irbid, Quwesmeh, Madaba, Salt and Aqaba, comprising 766 units, at a total cost of JD 1.08 million.

c) Loans to two cooperative housing societies in Amman totalling JD 275,000 to finance the construction of 115 units with a total area of 16,500m^2 .

d) The purchase of 306 dunums for housing purposes in various parts of the Kingdom, at a cost of JD 180,000.

e) Plans and studies for housing projects in Amman, Zerka, Irbid, Madaba, Salt, Aqaba, Karak and Ramtha.

f) Studies on the development and processing of local building materials for reducing housing cost ; and the construction of pilot housing schemes in cooperation with UNDP.

2. Characteristics and Problems

The housing problem has the following characteristics :

a) An average rate of occupancy of 2.5 persons per room ; this rate reaches higher levels among low-income groups.

b) Lack of basic utilities in a large proportion of houses resulting in the absence of proper social and healthy environment.

c) Rents represent 24% to 28% of household expenditures, as compared with 15% to 20% in many other countries.

d) High construction costs, resulting from :

1. Relative increases in the prices of land and building materials.
2. Lack of building codes and standards.
3. Building of one-family houses, without utilization of the economies of large-scale production.

e) Insufficiency of financial resources and credit facilities for housing constructon.

f) The inclination of people to live in Amman and other main cities enjoying an abundance of services and employment opportunities. This fact aggravated the housing problem.

3. Goals

a) Construction of about 21,000 housing units during the Plan period, out of which the Housing Corporation will construct

450 units in pilot schemes and 5,000 units for middle-and-lower-income groups. In addition, 5,400 units will be constructed through the Rehabilitation and Development Plan of the Jordan Valley. The balance will be constructed by the private sector.

b) An increase in the contribution of the Housing Sector to the GDP from JD 14.2 million in 1971 and an estimated JD 14.8 million in 1972 to JD 18.6 million in 1975. This will create 8,000 new job opportunities during the Plan period.

c) Reducing construction costs through the development and processing of local construction materials, adoption of standardized specifications and the production of these materials in economic quantities.

4. Organizational and Policy Measures

a) Enactment of the necessary housing legislation for :

1. Establishment of a National Housing Council representing Government departments concerned, the Housing Corporation, the Housing Bank, savings and loans associations and the private sector. This Council will undertake the following tasks :

    a) Formulate a national housing policy and supervise its implementation.

    b) Supervise and coordinate the operations of the Housing Corporation, the Housing Bank and the savings and loans associations.

    c) Charter and supervise savings and loans associations.

2. Establishment of a governmental or mixed Housing Bank to provide credit to the Housing Corporation, savings and loans associations, housing cooperatives, private-sector housing companies and individuals.

3. Modifying the task of the Housing Corporation to enable it to specialize in the following:

    a) Undertake studies for drawing out a national housing policy and specifying building standards.

    b) Carrying out research and studies for the development, classification and definition of standards and specifications covering local and imported building materials for the purpose of reducing construction costs, improving quality and reducing the proportion of imported building materials. This shall be carried out in co-operation with the Ministry of Public Works and the Royal Scientific Society through the Building Materials Research Centre.

    c) Carry out housing projects, including schemes for middle-and-low-income groups within the framework of the national housing policy.

    d) Purchase, develop and sell housing sites provided with services and utilities.

4. Organizing the establishment of savings and loans associations for housing for the increase of savings to be invested in housing.

b) Requesting large companies and institutions to promote housing projects for their employees.

c) Encouraging the establishment of housing cooperatives and financing them.

d) Encouraging the private sector to construct houses on the following basis :

1. Establish companies and institutions to promote housing.

2. Exempt houses (under $120m^2$) built during the period of the Plan from building tax (but not from sewage tax) for a period of three years after completion.

3. Grant the exemptions embodied in the Encouragement of Investment Law to companies engaging in the construction of residential houses.

e) Passing the necessary legislations to build unused plots within municipal limits to make use of the available services.

f) Co-operation with the parties concerned in the training and provision of skilled labour needed for the implementation of housing projects and meeting the manpower deficit in the services sector.

g) Giving the Housing Corporation representation on the Government Land Delegation Committee to enforce article 10 of the Housing Corporation Law which deals with the use of state land for the benefit of housing projects.

h) Constructing Government office buildings, in order to release residential buildings for use as originally intended.

5. Projects

a) Housing Corporation Projects

1. Construction of houses for low and middle - income groups

This would include the construction of 5,000 dwellings, of which 3,500 will be for low-income groups and 1,500 for middle-income groups. Costs will amount to JD 6 million, to be financed from the resources of the Housing Corporation (Capital, Government contribution and interest) and from local and foreign loans, distributed as follows:

	1973	1974	1975	Total
Number of housing units	1200	1700	2100	5000
Cost (JD 000's)	1500	2000	2500	6000

2. Pilot Project

This pilot project includes the construction of 450 units, of which 200 will be in urban areas and 250 in rural areas and bedouin settlements, as specified in an agreement signed with UNDP. The agreement also includes a provision for studies on construction methods, materials and costs. The cost of this project is JD 930,000 over the Plan years, distributed as follows:

(in JD 000's)

	1973	1974	1975	Total
Government Contribution	250	250	250	750
UNDP Contribution	60	60	60	180
Total	310	310	310	930

b) Housing in the Jordan Valley

This project is part of the Jordan Valley Rehabilitation and Development Plan. The Valley contains the most important agricultural area in the Kingdom with respect to its substantial potential for increasing agricultural production and exports and absorbing additional manpower.

The Plan calls for the establishment of five main settlements in Northern Shouna, Wadi El - Yabis, Arda, Karameh and Southern Shouna, with a population ranging from 10,000 to 15,000 inhabitants in each with satellite housing centres around the main settlements.

The aim of this project is to rebuild farm houses destroyed or damaged during the 1967 War and its aftermath. It also aims at providing new houses for farmers working in the Valley.

The total number of units to be constructed is 5,400, at a cost not exceeding JD 330 per unit, to be financed by foreign aid, the Government Budget and farmers' contributions. The total cost of the project is estimated at JD 1.782 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign aid & Government Contribution	552	414	276	1242
Farmers' Contribution	240	180	120	540
Total	792	594	396	1782

c) **Private Sector Investment**

The organizational measures of the Plan encourage the private sector to invest in housing, thus providing new job opportunities and stimulating the building - materials industry. It is expected that the private sector will invest JD 24 million during the Plan period, distributed as follows :

(in JD 000's)

1973	1975	1974	Total
8000	8000	8000	24000

SUMMARY OF HOUSING PROJECTS

(in JD 000's)

	1973	1974	1975	Total
1. a) Housing Corporation Projects	1,500	2,000	2,500	6,000
b) Pilot Project	310	310	310	930
2. Jordan Valley Project	792	594	396	1,782
3. Private Sector Projects	8,000	8,000	8,000	24,000
Total	10,602	10,904	11,206	32,712

B. GOVERNMENT BUILDINGS

The area of buildings occupied by Government ministries and departments in the East Bank (excluding schools, clinics and hospitals) totals about 102,000 m^2, out of which only 22,000 m^2 are owned by the Government. The remaining 80,000 m^2 are rented at a cost to the Treasury of about JD 300,000 annually and do not meet the functional requirements of Government office buildings.

2. Characteristics and Problems

a) Buildings rented for Government offices were not originally designed for this purpose, and consequently do not meet functional requirements and are mostly located in residential areas.

b) Since these rented buildings were designed for residential purposes, 15% of their area is unutilized.

c) Buildings occupied by Government ministries and departments in Amman are scattered in different parts of the city, thus making the movement of citizens from one department to another both difficult and expensive.

3. Goals

a) Construction, at the lowest possible cost, of 40,000 m^2 of Government office buildings. The following principles will ensure maximum efficiency :

1. Designs should suit modern management requirements.
2. Individual offices should be curtailed in favour of large open offices.
3. Adequate waiting rooms should be provided.
4. Departments with related functions should be adjacently located.
5. Surrounding areas should be developed, particularly with a view to accommodating traffic.
6. Construction of these buildings should be financed mainly through foreign loans, under an arrangement ensuring that annual repayments plus interest should not exceed annual rents paid by the Government.

b) Utilization of the buildings currently occupied by Government bodies for housing purposes after evacuation.

c) Alleviating the rental burden on the Treasury, which has increased considerably during the past few years.

4. Projects

a) Construction of Office Buildings in Amman, Irbid and Zerka

Construction of buildings to accommodate 28 Government ministries, departments and authorities, with a total area of 40,000 m² and at an estimated cost of JD 1.2 million. Also construction of 4,000 m² at an estimated cost of JD 120,000 in Irbid and 5,000 m² at an estimated cost of JD 150,000 in Zerka. These buildings will be financed through foreign loans as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman	300	500	400	1,200
Irbid	30	50	40	120
Zerka	40	60	50	150
Total	370	610	490	1,470

b) **Construction of Office Buildings in Salt, Kerak, Ma'an and the Jordan Valley**

1. Completion of the Government office complex in Salt through building 1,500 m² at an estimated cost of JD 45,000.

2. Completion of the Government office complex in Kerak through building 2,600 m² at an estimated cost of JD 78,000.

3. Completion of the Government office complex in Ma'an through building 1,000 m² at an estimated cost of JD 30,000.

4. Building a Government office complex in the Jordan Valley with an area of 2,000 m² at an estimated cost of JD 60,000.

These projects will be financed from the Government budget as follows :

(in JD 000's)

	1973	1974	1975	Total
Salt Office Complex	15	15	15	45
Kerak Office Complex	18	30	30	78
Ma'an Office Complex	10	10	10	30
Jordan Valley Office Complex	20	20	20	60
Total	63	75	75	213

c) Construction of Rehabilitation Centre

The Government has exerted a serious effort in the interest of providing rehabilitation centres with necessary facilities. As the building in which the Central Rehabilitation Centre is housed does not meet the functional requirements of the Centre, there is an urgent need for constructing a Centre in which all the facilities for social rehabilitation are available. The Centre would have a total area of 14,000 m^2 and would cost JD 420,000, to be financed from the Government budget and foreign assistance as follows:

(in JD 000's)

	1973	1974	1975	Total
Government budget and foreign assistance	100	200	120	420

d) Equipping the Construction Materials Research Centre

This project aims at equipping the Construction Materials Research Centre of the Ministry of Public Works with the instruments and apparatus needed for research in new and less expensive construction materials. The equipment is also needed for developing more economical construction techniques, in cooperation with the Housing Corporation and the Royal Scientific Society. Costs are estimated at JD 75,000, to be financed from the Government budget and the Industrial Development Centre of the Arab States (IDCAS) as follows:

(in JD 000's)

	1973	1974	1975	Total
Government budget	10	10	10	30
(IDCAS)	15	15	15	45
Total	25	25	25	75

SUMMARY OF GOVERNMENT BUILDINGS PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Government Office Buildings in Amman, Irbid and Zerka	370	610	490	1,470
2.	Government Office Complexes in Salt, Kerak, Ma'an and Jordan Valley	63	75	75	213
3.	Rehabilitation Centre	100	200	120	420
4.	Equipping the Construction Materials Research Centre	25	25	25	75
	Total	558	910	710	2,178

SUMMARY OF HOUSING AND GOVERNMENT BUILDINGS PROJECTS

(in JD 000's)

		1973	1974	1975	Total
1.	Housing Projects	10,602	10,904	11,206	32,712
2.	Government Buildings Projects	558	910	710	2,178
	Total	11,160	11,814	11,916	34,890

15. MUNICIPAL AND RURAL AFFAIRS

The development of the Jordanian society and the provision of public services to all citizens particularly those in rural areas requires the strengthening and upgrading of the services offered by the municipal and village councils. It was for this reason that a seperate Ministry of Municipal and Rural Affairs was established in 1965 and a Municipal and Village Loan Fund was also set up in 1966. These two bodies provide technical skills and finance to municipal and village projects. Twenty-six municipal councils have been instrumental in implementing road, electricity and water projects.

In both area and population, Amman has grown to twelve times its size of 1948. Reasons for this growth are :

a. Concentration of economic and industrial activities, Government departments and educational institutions in Amman with the result that it became the major centre for employment opportunities.

b. Availability of social, cultural and recreational services to a greater degree than in any other city in the Kingdom.

c. Low productivity of the traditional agricultural sector, resulting in a steady migration to the cities and especially to Amman.

d. Compulsory mass exodus from the West Bank caused by the Israeli aggression. The bigger wave, comprising about 150,000 persons, occured in just few days after the 1967 June War. The population of Amman had been expected to reach 520,000 in 1985, but it actually reached this figure in 1971. Amman increased in area from 45 square kilometers in 1956 to 110 in 1971.

The excessively rapid growth of Amman had led to a complex of social, cultural, environmental and health problems. For example, the demand for drinking water increased to a point where it exceeded available supply. Substandard residental concentrations emerged in the eastern and southern sections of Amman and along the Sail in the Centre. In addition, the steets became crowded with all types of vehicles and the demand for health, social and cultural services became insistently obvious.

In order to settle these problems and minimize their social implications, the Amman Municipality carried out a number of projects : completion of the first and second stages of the Amman drinking-water project, sewage projects, the slaughter house, the Sail roof and the central vegetable market. A bacteriological laboratory for analyzing and supervising foodstuffs was set up ; traffic lights, roads, street lighting and public stairs were supplied. More than 45,000 trees were planted. Moreover, the Amman Municipality prepared master plans for a number of city quarters and engineering designs for a group of projects relating to streets, bridges and parking lots. New agencies responsible for providing health and recreational services were also established.

2. Characteristics and Problems

a. Increase in the population influx from rural areas to the cities. This has led to overpopulation in the cities, especially in Amman, to mounting pressure on Government services, to impoverishment of the countryside, and to the distortion of the principles of population distribution.

b. Meagre financial resources at the disposal of the Amman Municipality, town municipalities and village councils and their dependence on Government loans and grants. This state of affairs has restricted their ability to carry out essential development programmes for local communities.

c. Lack of citizen participation in local development programmes

d. Inadequacy of criteria measuring the performance of local government; also, shortage of technical and administrative personnel in the administrations and councils of some municipalities and villages.

e. Absence of overall planning for projects in villages and towns. A long-term regional master plan needs to be formulated. The plan should specify the projects to be implemented according to a pre-set scale of priorities and should define the role of the municipal and village councils concerned with implementation.

f. Absence of a clear definition of the responsibilities and powers of central Government bodies involved in village and municipal affairs; and insufficient coordination among them. This has resulted in inconsistencies and conflicting roles. The lack of coordination among these agencies is evident especially in the area of project implementation.

g. Lack of satisfactory public services, such as roads and water, in some villages and in the Badia (desert) region.

Although Amman shares most of these features, it has its own set of problems:

a. Misuse of lands and buildings which led to a confused land-use pattern, such as the use of residential buildings for commercial and industrial activity.

b. Inadequacy of the roads network in some populated areas and lack of basic public utilities like water, sewage and electricity in others. The unexpected population growth is the prime reason for this problem.

c. Emergence of substandard residential areas in the outskirts and mountain slopes of the city.

d. Tangible shortage of land areas allocated for public gardens and parks.

e. Inadequacy of financial resources available in the Municipality because of the increase in poverty - level group which requires more services than they can afford to pay for. This financial bottleneck is further aggravated by tax and dues' evasion and the underassessment of rents on houses and lands which fall within Municipality boundaries.

3. Goals

a. Providing the maximum of essential public utilities and houses and lands which fall within Municipality boundaries.

b. Checking the flow of citizens from villages to cities, by developing local resources and public services aiming at a balanced rate of development in all parts of the Kingdom.

c. Promoting and strengthening local governments, and instilling a civic spirit by motivating citizens to bear their share of responsibility towards their community and participate in its development.

d. Increasing local revenue to enhance the ability of local communities to implement their development and service projects.

4. Organizational and Policy Measures

a. Formulation and adoption of a master plan which observes demographic aspects and distribution of population, supplies essential utilities such as water, provides employment opportunities, allows for agricultural conservation and looks into the possibility of establishing satellite cities that will take population pressure off the big cities, especially Amman and Zerka. These satellite cities should be located in close proximity to the economic centres which they serve.

b. Adoption of a master plan for villages and towns based on the requirements of the comprehensive regional plan ; also, enactment of all necessary legislative measures for limiting the areas of Amman and Zerka within a green belt aiming at checking their abnormal growth.

c. Provision of local attractions and incentives to divert economic activity, such as industry, from Amman and Zerka to other towns and villages, thus creating employment opportunities, stemming the flow of rural migration and achieving a balanced development pattern in the different parts of the Kingdom.

d. Enactment of legislative measures ensuring a clear definition of the responsibilities and powers of all central Government agencies dealing with municipal and village councils and providing for proper coordination among them.

e. Strengthening of municipal planning agencies to achieve adequate local participation in the formulation and implementation of development plans.

f. Since the financial incomes of Amman and other municipalities from their local resources are much less than their expenditures, [illegible] is essential that those resources should be supplemented by :

   1. Increasing and rationalizing the revenues of municipalities from the fuel tax.

   2. Reassessing the value of buildings and real estate within municipal boundaries for tax purposes.

   3. Enabling Amman and other municipalities to purchase plots falling within their boundaries for re - planning, development and parcellation purposes. These should then be sold to the public at a profit .

g. Financing municipal and rural projects from the following sources :

   1. Citizen contribution in kind or cash to meet the total or partial cost of certain projects.

   2. New tax levies on direct beneficiaries from certain projects.

   3. Municipality budgets, and local and foreign loans.

h. Promoting citizen participation in community development through the collective channelling of available resources and the encouragement of private voluntary societies. In addition, the citizens should be enlightened through the communications media and public meetings, as to their duty towards their communities. It is proposed that this task be entrusted to the proposed Council for Pilot Development in Rural Areas. The Council will report directly to the Minister of Social Affairs and Labour and will include representatives from the public and private bodies concerned.

i. Supplementing the financial resources of the Municipal and Village Loan Fund with easy - term domestic and foreign loans, to enable it to participate in financing the economically feasible projects of municipalities and villages.

j. Conducting a comprehensive study, to be undertaken by the Ministry of Municipal and Rural Affairs, on the conditions of municipalities and village councils and the problems which prevent them from carrying out their functions efficiently. Such a study must cover technical, administrative and financial aspects.

k. Holding periodic seminars for those involved in municipal and village affairs to help them discuss the problems they encounter, propose alternatives and exchange views and knowledge.

l. Revising the Law of Municipalities in a manner consistent with the objectives of municipalities and village councils. Such revision should allow for :

    1. Authorizing municipal and village councils to assume greater responsibility for the development of local communities in accordance with their real needs.

    2. Specifying a set of defined conditions and prerequisites for establishing any new municipal or village councils.

    3. Strengthening the technical and administrative staff of the village and municipal councils through :

        a. Adding qualified Government appointed personnel to the membership of these councils.

        b. Requiring minimum educational qualifications for municipal and village councils, executives, especially mayors and chairmen of village councils.

m. Requiring every village and municipal council, each within its jurisdiction, to formulate a work programme which will include its projected activities during the years of the Plan. The Ministry of Municipal anl Rural Affairs will review and keep an eye on these programmes in order to ensure a balanced growth and improvement in services.

n. Raising to 30% the percentage of compensation - exempt land areas that the Amman and other municipalities are empowered to acquire under the City, Village and Building Law and the Land Acquisition Law. This woud enable the municipalities concerned to allocate adequate land areas for public parks and streets without having to pay compensation.

o. Requiring ministries and other Government bodies to obtain a permit from the Amman Municipality to carry out their construction projects within the Amman area. This proposal is made in the interest of better coordination with regard to project implementation.

5. Projects

a. Projects of Amman Municipality

1. Master Plan of Amman

This project includes the preparation of a long-term master plan for Amman, which will determine land uses, transportation and communication lines, population densities, size of population and other elements. The project requires the preparation of survey plans and modern aerial photography for the city.

Costs are estimated at JD 200,000, to be distributed as follows:

(In JD 000's)

	1973	1974	1975	Total
Foreign Loans	30	55	60	145
Amman Municipality	15	20	20	55
Total	45	75	80	200

2. Raghadan Bridge-Mahatta Road Area Plan

This project aims at conducting a study on planning and developing the area surrounding Raghadan Bridge-Mahatta Road for the purposes of determining land uses in it. The loan agreement concluded with IDA for financing the construction of the Amman-Zerka road had included a provision for this study, for which an amount of $ 300,000 was allocated. The balance of the loan, i. e. JD 90,000, will be spent during the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
IDA Loan	90	—	—	90

3. Amman Water Project - Third Stage

This project includes drilling new wells, installing new water-mains, enlarging the distribution system in the new residential areas and increasing the pumping capacity. This stage will be financed from IDA loans and by the Amman Municipality. Costs are estimated at JD 3 million, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Municipality	240	300	360	900
IDA Loans and/or others	560	700	840	2,100
Total	800	1,000	1,200	3,000

4. Sewage Project - Third Stage

This project includes providing the remaining residential quarters of Amman with the new main and secondary sewage networks and storm culverts, expanding the sewage treatment plan and taking the necessary action for extending the sewage system to serve the suburbs that may be incorporated within the city boundaries. Costs of this stage are estimated at JD 8 million, and implementation is expected to take eight years. Costs, over the Plan period, are expected to reach JD 2.750 million, and will be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Municipality	200	300	300	800
IDA Loans and/or Others	550	700	700	1,950
Total	750	1,000	1,000	2,750

5. Improving and Developing the Environment

This project aims at improving social, cultural and health standards in Amman, especially the southern and eastern parts, and improving the levels of public services and housing. Costs are estimated at JD 7 million, and implementation is expected to take ten years. Amounts that will be expended over the Plan period are estimated at JD 750,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Loans and Grants	250	250	250	750

6. Abdoun Dam

In order to replenish ground water resources in Amman for meeting the increasing demand for water, it is proposed that a dam be constructed in Abdoun area for raising the volume of ground drinking-water reserves. The reservoir behind the dam can be used for recreational, tourist and fishing purposes. Costs of this project over the Plan period, including studies and implementation, are estimated at JD 820,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Grants and Foreign Loans	120	200	500	820

7. Construction of New Roads, Maintenance of Existing Roads and Regulation of Traffic

This project calls for the construction of new roads, stairs and pedestrian walkways in both inhabited and not yet developed parts of the city. It includes the provision of a new layer of asphalt mix estimated at 2,250,000 square meters, and the installing of traffic lights at twenty - five road intersections as an extension of the present system. The cost of these works, to be spent over the Plan period, is estimated at JD 1.4 million. It will be financed from the Municipality budget as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Municipality	500	400	500	1,400

8. Roofing the Sail (Raghadan Bridge - Mahatta)

This project aims at roofing the Sail in the strip falling between Raghadan Bridge and Mahatta with reinforced concrete for a total length of 3.2 km. The proposed roof will be an extension of that part of the Sail roof which was constructed in the heart of the City in 1965 to protect the City from floods, check the spread of diseases, create a main outlet for relieving the pressure of traffic and help develop the surrounding area for commercial and other purposes. Costs, estimated at JD 0.6 million, will be financed from the Municipality budget and a contribution from the World Food Programme. They will be distributed over the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Municipality	—	100	100	200
Contribution of World Food Programme and other Foreign Assistance	—	200	200	400
Total	—	300	300	600

9. Parking Lots

This project includes the construction of three multi-storey buildings, two of which will be located in Shabsough area and the third on Prince Mohammed Street. They will be used as parking lots and as commercial warehouses and offices. Besides helping solve the parking problem, these buildings will yield a steady income for the Amman Municipality estimated at an annual 12% return on investment. Engineering studies for some of these parking lots have already been conducted, tender documents prepared and the necessary land acquisitions made. Costs of construction are estimated at JD 1.69 million. Parking lots can be financed in one of the following ways :

a. Leasing the land allocated for parking lots to a second party or a company which will utilize it for a specific period of time, after which ownership will revert to the Amman Municipality.

b. Establishing a mixed company (Amman Municipality and the private sector) to construct and operate the parking lots.

c. Obtaining a long-term foreign loan for financing the project.

d. Implementing the project over a period of ten years by Amman Municipality.

Costs over the Plan period are estimated at JD 550,000, to be distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Amman Municipality Budget, Foreign Loans and/or Private Sector Participation	150	200	200	550

10. Industrial Zone

This project calls for designation of one or more zones in which craft shops and small engineering industries such as blacksmith shops, carpentry and car repair will be located, instead of being dispersed in residential and commercial areas all over the city. Costs are estimated at JD 2 million. The project is to be executed on a commercial basis with the participation of the Industrial Development Bank. Costs over the Plan period are estimated at JD 450,000, to be financed from the Municipality budget and loans and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Municipality Budget & Loans	100	150	200	450

11. Purchase of Machines and Equipment

This project aims at providing the Municipality with machinery and mechanical equipment for construction works and road building, transportation vehicles, and other equipment. Costs, estimated at JD 150,000, will be financed from foreign loans and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Loans	50	50	50	150

b. Projects and Other Municipalities, Villages and Desert Areas

12. Regional Planning Study

This project aims at conducting a comprehensive regional planning study for determining the size of population that can be absorbed in each populated area, given the basic livelihood elements and availabililty of job opportunities. Costs, estimated at JD 200,000, will be financed from foreign aid and distributed as follows :

			(in JD 000's)	
	1973	1974	1975	Total
Foreign Aid	100	100	—	200

13. City and Village Planning

This project includes making aerial photography of a number of locations for the purpose of local planning as well as conducting studies on the planning of a number of villages and cities. Costs, to be financed from the Government Budget, are estimated at JD 158,000, and will be distributed as follows :

			(in JD 000's)	
	1973	1974	1975	Total
a. Aerial Photography of the Greater Irbid Area	24	—	—	24
b. Aerial Photography of the Greater Amman Area	40	—	—	40
c. Conducting Studies on the Planning of Cities & Villages	16	16	16	48
d. Aerial Photography of the Jordan Valley	—	30	—	30
e. Aerial Photography of a Number of Villages & Cities	—	—	16	16
Total	80	46	32	158

14. Pilot Development in Rural Areas

This project aims at establishing two centres for comprehensive pilot rural development.

15. Rural Schools

This project calls for the construction of schools in municipalities, villages and settlement areas in accordance with the Plan of the Ministry of Education. The cost estimate over the Plan period is JD 500,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget	150	150	200	500

16. Extension of Water Systems to Local Communities

This project aims at providing and conserving water springs, constructing a number of water systems in some villages and desert areas, and implementing joint projects in some areas. Costs are estimated at JD 850,000, to be distributed as follows :

(in JD 000's)

		1973	1974	1975	Total
a.	Integrated Project for Providing Populated Areas in the Jordan Valley with water (Financed from the Government Budget, Foreign Assistance and Loans)	160	252	193	605
b.	Internal Water System for 15 Villages in Ma'an Governorate (Financed from the Government Budget)	25	—	—	25
c.	Developing Eil Well in Ma'an Governorate (Financed from the Government Budget)	—	40	—	40
d.	Providing Ghor Safi Villages with Water (Financed from the Government Budget)	—	20	—	20
e.	Internal Water System for 10 Villages in Irbid Governorate (Financed from the Budget of Municipalities and Village Councils)	—	15	—	15
f.	Providing the Villages of A'alouk, Yarouth, Al-Murrah in Belqa Governorate with Water (Financed from the Government Budget)	—	15	—	15
g.	Developing and Improving a Number of Springs in Various Regions of the Kingdom, Including the Desert Areas	10	10	10	30
h.	Suweileh Water Project (Financed from Suweileh Municipality Budget & Loans)	50	50	—	100
	Total	245	402	203	850

17. Extending Drinking Water Pipes to Villages and Desert Areas

The implementation of a project aiming at extending drinking water systems to all Governorates has been initiated. Among the most important achcivements were : the construction of a pipe system 1700 km. long, the erection of a sizeable number of concrete water reservoirs of different capacities, and the installation of 43 water pumping units. All these achievements have contributed to the extension of water and increasing the quantities supplied to 450 cities and villages.

The present project aims at continuing the extension of water to villages and municipal and desert areas not enjoying this utility, and increasing the volume of water supplies to other villages and cities to a satisfactory level. Costs, estimated at JD 900,000, will be financed from the Government Budget and foreign aid and distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Government Budget and Foreign Aid	300	300	300	900

18. Construction of Streets

This project aims at constructing asphalt streets in cities and villages. Costs, estimated at JD 900,000, will be financed from the budget of municipalities and private and official foreign aid and distributed as follows :

			(in JD 000's)	
	1973	1974	1975	Total
Constructing New Streets in Municipal Areas and Villages (Financed from the Budgets of Municipal areas and Village Councils)	200	250	300	750
Constructing Streets in Other Villages (Financed from Private and Official Foreign Aid)	50	50	50	150
Total	250	300	350	900

19. Extending Electricity to Some Rural Areas

This project aims at erecting electricity networks in a number of villages, constructing a central project in Karak Governorate for providing the villages of the Governorate with electric power, increasing electricity generation capacity in Ma'an and extending electric power to some neighbouring villages. Costs are estimated at JD 410,000. Parts a, b and c below will be financed from the budget of the respective Municipalities and Village Councils. Part will be financed form the budget of Karak Municipality and the participation of the private sector. Costs will be distributed over the Plan period as follows :

(in JD 000's)

	1973	1974	1975	Total
a. Providing Some Villages of Amman Governorate with Electric Power	30	—	—	30
b. Extending Electric Power to 10 Villages in Irbid Governorate	60	—	—	60
c. Increasing Electricity Generation Capacity in Ma'an and Providing Electricity to the Villages of the Governorate	70	—	50	120
d. Establishing Central Electricity Project in Karak for Providing the Villages of the Governorate with Electric Power	—	50	150	200
Total	160	50	200	410

20. Completing Studies on Sewage Systems

This project aims at completing studies on sewage systems in the cities of Zerka, Salt and Jerash. Costs of these studies, estimated at JD 80,000, will be financed from loans and budgets of the cities concerned, as follows:

(in JD 000's)

	1973	1974	1975	Total
Study of Zerka Sewage	50	—	—	50
Study of Salt Sewage	15	—	—	15
Study of Jerash Sewage	15	—	—	15
Total	80	—	—	80

SUMMARY OF MUNICIPAL AND RURAL AFFAIRS PROJECTS

A. Amman Municipality Projects

(in JD 000's)

		1973	1974	1975	Total
1.	Master Plan of Amman	45	75	80	200
2.	Study on the Planning of the Area Surrounding the Raghadan Bridge - Mahatta Road	90	—	—	90
3.	Amman Water Project — Third Stage	800	1,000	1,200	3,000
4.	Amman Sewege Project — Third Stage	750	1,000	1,000	2,750
5.	Improving and Developing the Environment	250	250	250	750
6.	Abdoun Dam	120	200	500	820
7.	Constructing New Streets	500	400	500	1,400
8.	The Sail Roof (Raghadan Bridge - Mahatta)	—	300	300	600
9.	Parking Lots	150	200	200	550
10.	Industrial Zone	100	150	200	450
11.	Machinery and Equipment	50	50	50	150
	Total (A)	2,855	3,625	4,280	10,760

B. Projects of Municipalities, Villages and Desert Areas

(in JD 000's)

		1973	1974	1975	Total
12.	Regional Planning Study	100	100	—	200
13.	City and Village Planning	80	46	32	158
14.	Pilot Development in Rural Areas	—	—	—	—
15.	Rural Schools	150	150	200	500
16.	Extension of Water Systems to Local Communities	245	402	203	850
17.	Extending Drinking Water Pipes to Municipalities, Villages and Desert Areas	300	300	300	900
18.	Construction of Streets	250	300	350	900
19.	Extending Electricity to some Villages	160	50	200	410
20.	Completing Studies on Sewage Systems in Zerka, Salt and Jerash	80	—	—	80
	Total (B)	1,365	1,348	1,285	3,998
	Grand Total (A+B)	4,220	4,973	5,565	14,758

16 . AL – AWQAF

The main role of the Ministry of Awqaf, Islamic Affairs and Holy places is the promotion of the spiritual, cultural and social values of the Jordanian society, as well as contributing to the economic development of the country. The Awqaf Law No. 26 of 1966 emphasizes the prime importance of mosques and Awqaf property, their maintenance, development, and administration.

2. Characteristics and Problems

The most important problems and difficulties that confront this sector are summarized as follows:

a. Inadequacy of available funds for the performance of responsibilities laid upon the departments and bodies entrusted with Awqaf, Islamic Affairs and Holy Places.

b. Shortage of technically qualified personnel needed for developing these departments and bodies on a modern basis that would make them capable of planning, supervision and implementation.

3. Goals, Organizational and Policy Measures

In general, the main aim of this sector is the preservation and strengthening of the social structure, the performance of a positive role in safeguarding moral integrity, and the participation in the welfare of orphans, martyrs' children and the needy. The specific objectives are the following:

a. Construction of mosques in various parts of Jordan according to a long-term plan, to be used as religious, cultural, educational, and social centres.

b. Upgrading the staff of the Islamic Preaching and Guidance Department, and modernizing of administrative and technical capabilities in the Ministry by increasing the number of scholarships abroad for advanced studies in religious subjects and relevant specializations, as well as supporting the Sharia College at the University of Jordan.

c. Increase available financial resources through purchase and exchange of land, and execution of construction projects that will augment revenues, such as school, residential, commercial and other buildings.

d. Helping orphans, martyrs' children and the needy, by providing them with boarding facilities and educational and vocational training opportunities.

e. Assist pilgrims by providing them with necessary facilities on their way to Mecca and back.

4. Projects

The implementation of this program depends mainly on donations and voluntary contributions from local and foreign sources, in addition to Awqaf property revenues.

a. Mosques

The Plan aims at the establishment of mosques in Amman, Salt, Irbid, Ramtha, and H-4. It also aims at the completion of the Jordan University mosque, the construction of a mosque in the Shobak Agricultural School, and participation in the building of mosques in various towns, villages and secondary schools. Due attention will be paid to the construction of commercial markets attached to mosques, which will increase revenues. The overall costs of these projects are estimated at JD 530,000. They will be financed from local contributions and Muslim endowments. The amount will be allocated and distributed over the years of the Plan as follows :

(in JD 000's)

	1973	1974	1975	Total
Contribution of the Ministry	50	55	60	165
Personal and Islamic Donations	100	135	130	365
Total	150	190	190	530

b. Awqaf Commercial Buildings

The Plan aims at the construction of commercial buildings on lands owned by Awqaf in most of the cities of the Kingdom. They will all be financed by the Ministry of Awqaf, Islamic Affairs and Holy Places. They are :

1 The first stage of the Awqaf constructions at Wadi Suroor, Amman.

This project aims at the construction of a multipurpose building (shops, stores, etc.). The estimated cost of the first stage of this project, to be completed within the Plan years, is JD 250,000. The annual financial needs will be as follows :

(in JD 000's)

	1973	1974	1975	Total
Ministry Budget	50	100	100	250

2. The Ministry of Awqaf office building

The cost of this three-storey building is estimated at JD 42,000. The annual financial needs will be as follows :

(in JD 000's)

1973	1974	1975	Total
14	14	14	42

3. The first stage is the construction of stores and offices at Ma'an.

The estimated cost of this first stage is JD 30,000, distributed as follows :

(in JD 000's)

1973	1974	1975	Total
5	10	15	30

4. Stores in Irbid

Costs are estimated at JD 25,000 for a two-storey building of 1,000 sq.m. The annual financial needs will be as follows :

(in JD 000's)

1973	1974	1975	Total
10	15	—	25

5. Other commercial stores

This project aims at the construction of stores and a commercial market in Irbid, which will cost 8,000 ; Lady Hamida stores in Amman at a cost of JD 23,000 ; the first stage of a school and stores in Tafilah at a cost of JD 3,000 ; stores and the first-storey of a building in Suweileh at a cost of JD 7,000 ; the first stage of stores and offices in Jerash at a cost of JD 6,000. The total cost is JD 47,000, distributed as follows :

(in JD 000's)

1973	1974	1975	Total
17	15	15	47

6. Commercial construction attached to planned mosques in Amman and Salt.

The annual financial needs will be :

(in JD 000's)

1973	1974	1975	Total
65	50	50	165

Summary of annual financial needs under (b) :

(in JD 000's)

1973	1974	1975	Total
161	204	194	559

c. Academic-Vocational Institutes :

1. The Islamic Industrial Orphanage School

This will be built on an appropriate Awqaf piece of land in Amman.

The project aims at providing orphans with boarding, academic and vocational facilities. The needy will also receive training in crafts and vocations that will enable them to earn their living, and hence both groups will be able to share in the general development of the country. The construction will occupy an area of 1500 sq.m. The estimated cost for this project will be JD 100,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Citizens' Participation, Islamic Contributions and Ministry Budget	30	30	40	100

2. The Sharia Institute in Amman

Due to a shortage in qualified Imams for mosques, the Ministry will open a Sharia Institute in collaboration and co-ordination with the Sharia College, University of Jordan. In this institute, students will be given such Sharia subject as would qualify them for Imamhood in the Kingdom's mosques. In addition, presently employed Imams will receive the training they need in this institute. The academic course of study will be for two years after the General Secondary Certificate. Costs are estimated at JD 25,000, distributed as follows :

(in JD 000's)

	1973	1974	1975	Total
Ministry And Islamic Contributions	15	10	—	25

SUMMARY OF PROJECTS OF THE MINISTRY OF AWQAF, ISLAMIC AFFAIRS AND HOLY PLACES

(in JD 000's)

	1973	1974	1975	Total
A. Mosques	150	190	190	530
B. Commercial Awqaf Buildings	161	204	194	559
C. Cultural and Vocational Institutes	45	40	40	125
Total	356	434	424	1214

17. STATISTICS

The development of statistical knowledge and techniques in Jordan has gone hand in hand with advances in the administrative, economic and social fields. This development has been demonstrated by wide expansion in the fields of collecting and publishing statistical data ; by the increased number of statistical surveys ; and by the creation of statistical divisions in a number of ministries and departments. A Statistical Training Centre, annexed to the Department of Statistics, was established in 1964 for training statisticians from all governmental bodies. Further-more, the use of electronic computers in data processing since 1969 has greatly accelerated the pace of development in the statistical field in Jordan.

2. Goals

The goals of development in the field of statistics are : to achieve a full knowledge of facts concerning all economic and social activities in the country, and to use statistical data for measuring the achievements of development plans on a continuous basis.

3. Organizational and Policy Measures

a. Unification and coordination of statistical operations and methods used by the Department of Statistics and other statistical units in order to expand statistical activities and prevent duplication of work. This is to be implemented by a permanent statistical committee made up of representatives from the Department of Statistics, the National Planning Council, the Royal Scientific Society and statistical units in different ministries and departments. The committee will review all statistical series.

b. The Department of Statistics and all existing statisti units in ministries and departments will each develop detailed plan of operation for the Plan period. The pl of operation will include all statistical activities to performed annually. They should include all statisti projects that would fulfill the statistical needs of all mi tries and departments. They should also take into consi ration the need for expanding the statistical base, develop its capabilities and subjecting the whole process t rigorous scientific method of statistical inference.

c. The development of a comparable time series in the fi of manpower, population, industry, agriculture and nati accounts statistics requires that three statistical surv be conducted on a continuous annual basis. These are t considered part of the normal daily duties of the Departm of Statistics and not as development projects. The surv are : the multipurpose household survey, the establishm survey and the agricultural survey.

d. A complete review of the classification of foreign t statistics, the labour force, tourism and social statistic necessary for the purpose of developing and appl statistical classifications that would serve a wide va of purposes.

e. Compilation of national income accounts in accordance the unified Arab system and the revised United Nat system for national accounts and measuring the real nati income in Jordan (at constant prices). Also an effort be made to expand the use of index numbers in all s of statistics.

f. The annual statistical abstract published by the Depart of Statistics must include all statistics available i governmental bodies. This publication must cover all sp of activity.

4. Projects

a. Social and Economic Population Survey

Jordan took its last census in 1961. Another census was planned for 1971, but the 1967 June War has made a general census an impossible undertaking. In the meantime, the population of the East Bank of Jordan has been undergoing drastic changes in size and structure, particularly in the cities.

The proposed survey is basic for providing reliable social and economic information about the population and as a means of studying urbanization in Jordan and its social and economic implications. This survey will also be used as a general frame for the current multipurpose household survey conducted by the Department of Statistics.

Total costs of the project are estimated at JD 225,000. The United Nations Fund for Population Activities (UNFPA) has agreed to contribute to the financing of the study on the populations of the cities of Amman, Zerka, Ruseifeh, Madaba, Wadi El-Seir, Suweileh, Salt, Irbid, Jerash and Aqaba, and to provide the necessary equipment and expertise. The cost of this part of the survey is estimated at JD 100,000, of which JD 80,000, will be financed by UNFPA and the remaining JD 20,000 will come from the Department of Statistics in the form of in-kind contribution. New contacts will be made with UNFPA and other international agencies to finance the other parts of the survey covering other towns and villages. The cost of the other parts of the survey is estimated at JD 125,000, of which JD 20,000 will be financed by the Department of Statistics, JD 7000 in-kind.

Costs of the whole survey will be distributed over the Plan period as follows :

(in JD 000's)

		1973	1974	1975	Total
1.	Contribution of UNFPA and other international agencies	7	171	7	185
2.	Government Budget	3	5	5	13
	Total	10	176	12	198

b. Agricultural Census

It is proposed that a comprehensive agricultural census be undertaken. The data to be collected should cover the structure, production and labour force in the agriculture sector. The results of the census will be used to update the frame of the current agricultural statistics surveys.

Total costs of the project are estimated at JD 65,000, to be financed from international or bilateral assistance, and will be distributed over the period of the Plan as follows :

(in JD 000's)

	1973	1974	1975	Total
Foreign Aid	10	55	—	65

SUMMARY OF STATISTICS PROJECTS

(in JD 000's)

		1973	1974	1975	Total
a.	Social and Economic Survey	10	176	12	198
b.	Agricultural Census	10	55	—	65
	Total	20	231	12	263

18. MANPOWER AND EMPLOYMENT

1. Characteristics and Problems

a. The populatioin of the Kingdom in 1972 is estimated at 2.4 million, of whom 1.7 million are in the East Bank. Manpower studies indicated that the labour - force participation rate is 20%. The total labour force amounts to 370,000, of whom 150,000 are in the non-farm civilian sectors. The low labour-force participation rate is due to the low age-profile of the population, the high rate of school enrollment and low female participation in the labour - force.

b. In addition to the Jordan labour force presently available in Jordan, there is a large number of high and middle level and skilled Jordanian manpower working outside Jordan, especially in the Arab Gulf States, Saudi Arabia and Europe. The outflow of qualified workers is mainly attributed to the relatively high pay abroad. Some of those workers are expected to return to Jordan to seek better job opportunities which will be created as a result of the implementation of the Plan. Another reason for expecting the return of Jordanian technicians is the increasing number of local technicians being trained in the host countries where Jordanians are working.

c. During the sixties, most of the economic projects were concentrated in the urban areas, especially in the capital. This has encouraged the rural population to migrate to the cities, particularly Amman. As a result, Amman became over-populated with a high - level of unemployment while the rural areas were suffering from a shortage of manpower required to develop these areas.

d. Preliminary results of the Multi-Purpose Household Survey of 1971 showed that the unemployment rate was around 8%. Among the unemployed was a great number of university and secondary school graduates. On the other hand, the labour - force in the cities and especially in the refugee camps is underemployed. In addition, disguised and seasonal unemployment is widespread among the agricultural labour - force.

e. At present, the labour market is not well organized. There is no proper system of matching men and jobs. This responsibility was supposed to be undertaken by employment offices, but the employment office system has not yet been made workable in Jordan. In the past, there was only one employment office, but it has recently been discontinued. All employment affairs are now administered by a department attached to the Ministry of Social Affairs and Labour. There is an obvious need for an efficiently staffed employment agency that could win the confidence of both workers and employers.

f. Presently there are insufficient vocational training centres and vocational secondary schools aiming at upgrading the present workers as well as providing the labour market with new well - trained technical manpower. In addition, society in general and students in particular still prefer white - collar jobs to manual labour. In this respect it is worth mentioning the important role played by the Armed Forces vocational and training centres in providing the different industries with highly trained manpower.

g. The high proportion of enrollment in schools, which was one of the main educational achievements of the past two decades, has had its impact on the educational level of manpower in Jordan. According to the results of 1970 Labour Force Survey, 10% of the labour force are university graduates ; 11% have completed two years of post-secondary education ; 17% have completed the secondary level and 44% have less than secondary - level education. On the other hand, the illiteracy rate among workers is 15%, virtually all of whom are unskilled workers. Due to the shortage of vocational training centres, many of the skilled workers have received their training on-the-job.

2. Manpower Requirements

Capital-labour ratios, correlations between employment and expected gross domestic product and turn-over rates among currently employed workers were all taken into consideration assessing the net job opportunities expected to be available within the Plan period. Accordingly, during the Plan period the civilian sectors are expected to provide around 70,000 new job opportunities distributed as follows :

Sectors	Employment
Agriculture & Irrigation	18,000
Industry, Mining & Electricity	11,000
Services, including Public Administration	16,000
Construction	13,000
Trade & Finance	9,000
Others	3,000
Total	70,000

As to educational and technical requirements for these jobs, the occupational grouping system used by the Organization for Economic Cooperation and Development was applied. Accordingly, occupations were divided into four categories :

A (5%)

A - 1 Professional and technical occupations ordinarly requiring a science/mathematics based university degree.

A-2 Professional occupations ordinarily requiring a fine or liberal arts based university degrec.

B (10%)

B-1 Technical and sub-professional occupations ordinarily requiring two years post-secondary vocational education.

B-2 Technical and sub-professional occupations ordinarily requiring two years post-secondary arts education.

C (35%)

C-1 Skilled office occupations ordinarily requiring secondary school education.

C-2 Skilled manual occupations ordinarily requiring secondary school education.

D (50%) Agricultural and other unskilled occupations.

The new job opportunities expected to be created within the Plan period are distributed among the four main occupational categories on the basis of the results of manpower studies conducted by the Organization for Economic Cooperation and Development, other manpower studies conducted by United Nations agencies in Latin America, and on the results of the Manpower Survey of Establishments in Jordan conducted in 1970. The following table shows the distribution of jobs in the Plan period by educational attainment and by occupational categories :

Occupational Categories	%	No.
A. Professional	5	3,500
A-1 University degree/science	(25)	875
A-2 University degree/arts	(75)	2,625
B. Sub-Professional	10	7,000
B-1 Two years post-secondary/vocational	(25)	1,750
B-2 Two years post-secondary/arts	(75)	5,250
C. Skilled Workers	35	24,500
C-1 Secondary education/academic	(30)	7,350
C-2 Secondary education/vocational	(70)	17,150
D. Agricultural & unskilled workers	50	35,000
Total	100	70,000

a. No overall shortage of university graduates is likely during the Plan period. About 15,000 university degree holders are expected to graduate within that period. Of the graduates, 25% will have a scientific and 75% will have an arts background. Consequently, it is likely that some of the university graduates will fill jobs in the (B) and (C) occupational categories.

b. As far as the (B) category is concerned, around 7,000 subprofessionals will be needed (25% with vocational education and 75% with two years post-secondary arts education). As for (B-1) occupations, total graduates from higher vocational institutes of the Ministry of Education and UNRWA within the Plan period are expected to reach 450. Since 1,750 workers of this category are required for the Plan, a shortage of 1,300 trained workers will occur. A portion of these jobs is expected to be filled by some university graduates. The shortage of (B-1) workers emphasizes the necessity of expanding and creating new vocational centres.

As far as (B-2) occupations are concerned, no overall shortage is likely to occur during the Plan period because graduates from the present teacher training institutes in addition to university graduates will be enough to fill all job opportunities in the (B-2) category.

c. The Plan will provide about 7,350 skilled office occupation job opportunities for which academic secondary education is ordinarily required. Since there will be some 45,000 secondary school graduates during the Plan period, no shortage is likely to appear in this occupational category. On the other hand, the Plan provides for about 17,150 skilled manual job opportunities. This demand is expected to be covered by the graduates of the existing vocational secondary schools and the present trade training centres. In addition, accelerated and intensive training programmes for secondary school graduates will be conducted by present vocational schools and by the new training centres proposed in the Plan.

d. The Plan requires 35,000 workers for unskilled jobs, half of which will be agricultural jobs. Workers in this category need no previous training. Yet it is expected that most of the workers will have had some educational back-ground.

3. Objectives, Organizational & Policy Measures, and Projects

a. To meet the demand for skilled workers required for the Plan, crash training programmes will have to be established within the national vocational training scheme to train entry level workers, especially secondary school graduates. The national vocational training scheme will make use of the existing vocational centres and those proposed in the Plan. The national training scheme will be implemented with the technical assistance of the International Labour Organization. The following arrangements are to be taken within the national vocational training scheme :

1. Conducting manpower studies to determine the educational and training levels of the manpower requirements of the Plan.

2. To establish a vocational training department in the Ministry of Education to be responsible for the implementation and administration aspects of the national vocational training scheme.

3. To establish an advisory council dealing with vocational training, with representation from industrial firms, trade unions, the Chamber of Industry, the Chamber of Commerce, the Ministry of Education and the Ministry of Social Affairs and Labour.

b. To improve the technical and vocational level of existing workers through evening training programmes in the present training centres or in the new centres proposed in the Plan.

c. To establish a vocational guidance system for students in general and for secondary students in particular to aid them in becoming aware of the scope of employment opportunities available in the country, the education and training preparation required for entry, the conditions of work and level of remuneration in the various occupations and to guide them towards manual jobs.

d. To establish the following professional and technical institutions :

1. Two youth vocational rehabilitation centres.

2. Polytechnic institute and trade training centre in Marka.

3. The Agricultural Secondary School in Wadi Yabes.

4. Four industrial schools outside the Amman area.

5. Women crafts school in Amman.

6. Agricultural teacher training division in the Shobak Agricultural School.

7. Vocational training centre for telecommunications technicians.

8. Agricultural extension stations for the upgrading of agricultural workers.

9. Hotel training centre to rehabilitate and train workers involved in tourism services and hotel management.

10. Dar-al-Aytam Al-Islamia vocational school.

11. Para-medical institute.

e. To take all the necessary steps to convince Jordanians working abroad to come back and work in Jordan. It is expected that the level of wages which is likely to be paid during the Plan will cause those who are working abroad to consider coming back. To make use of those who are working abroad, a study should be undertaken to determine the number, specialization, qualifications and the kinds of posts currently held by Jordanians abroad. In addition, some incentives should be given for those who come back and, at the same time, certain administrative and legislative arrangements should be made in that respect.

f. To take the necessary administrative and legislative steps to recognize the labour market and to establish new employment offices in most of the districts to facilitate the matching of men and jobs.

g. To provide more training vocational opportunities for females, especially in the secretarial and office-type occupations, to enable them to participate in the development process and to alleviate the shortage of manpower in some handicrafts.

h. To give a special attention to the agricultural labour force by providing agricutural extension services to all agricultural labour so as to decrease migration from rural to urban areas and to encourage some members of the urban labour force to participate in agricultural work in the rural areas.